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SPLENOMEGALY WITH RECURRENT JAUNDICE ENDING
IN HEPATIC CIRRHOSIS AND ASCITES, WITH
REMARKS ON THE SPLENOMEGALY OF INHERITED
SYPHILIS IN CHILDREN.*

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THE patient, Eliza K—, was shown before the Society for the Study of Disease in Children on March the 17th, 1905.† At that time she was 12 years old, a rather delicately built girl, with moderate jaundice. The fæces were sometimes well-coloured, sometimes pale. The urine, which was free from albumin and sugar, had recently given a slight Gmelin's reaction for bile-pigments, but gave none at that time. The lower border of the spleen could be felt three finger-breadths below the costal margin in the left nipple line, and the area of splenic dulness was greatly enlarged (by percussion $3\frac{3}{4}$ in. in breadth and $6\frac{1}{2}$ in. in length). The liver seemed not to be enlarged, though it was occasionally felt below the costal margin. The other abdominal organs and the thoracic organs

* Paper read at the Royal Society of Medicine, Section for the Study of Disease in Children, on January the 27th, 1911.

† F. P. Weber, 'Reports of The Society for the Study of Disease in Children,' London, 1905, vol. v, p. 191.

showed nothing abnormal, excepting that there was at times a slight systolic murmur to be heard over the pulmonary area of the heart. Pulse, about 84 per minute, but very much increased in frequency on excitement.

The teeth were not very well formed, but were not distinctly "Hutchinsonian." Ophthalmoscopic examination showed nothing abnormal. A blood-count (February, 1905) gave: Red cells, 4,824,000 in the cubic millimetre of blood; white cells, 5100. A differential count of the white cells (March, 1905) gave: Polymorphonuclear leucocytes, 65.2 per cent.; lymphocytes, 30 per cent.; large mononuclears, 4.8 per cent. The lymphatic glands were not enlarged. There was no fever, and the child was cheerful and complained of no pain or abnormal tenderness anywhere.

The jaundice had apparently commenced about the middle of February, after the child had complained of pain in the left side (*i. e.* on the side of the spleen, not the liver); about that time she vomited twice. Six years ago she had had two attacks of jaundice, lasting two months and one month respectively, separated by an interval of three months, during which she was free from jaundice. Though the child presented no obvious signs of congenital syphilis, the history in regard to the mother's other children was somewhat suggestive of a syphilitic taint. The mother had eleven other children altogether, out of which six were born dead and two died early.

The patient was treated in the German Hospital from February the 21st to July the 2nd, 1905. When she left the hospital she was free from jaundice, with the exception of a very faint yellow tinge over the sclerotics, and her general health appeared to be good. The spleen, however, had not at all diminished in size in spite of treatment, firstly, by a course of mercurial inunction, with the internal use of potassium iodide, and secondly, by a course of exposure of the splenic region of the body to Röntgen rays. The blood-count on July the 1st, 1905, gave 4,696,000 red cells and 3400 white cells to the cubic millimetre of blood. The edge of the liver could just be felt below the ribs.

On leaving the hospital the patient seems to have got on well, but about three and a half years later (December, 1909) she began to feel ill and became slightly jaundiced. She was re-admitted on January the 1st, 1910, with ascites. The urine (free from albumin and sugar) contained a trace of bilirubin and much urobilin. The faeces were pale yellow in colour. The liver could not be felt. The spleen was large and hard, reaching down to the umbilical

level. The patient was not in any way stunted in growth (no "infantilism"), but was somewhat thin and anæmic. A blood-count (Dr. G. Dorner) gave: Red cells 3,966,000, and 12,000 white cells in the cubic millimetre of blood; hæmoglobin 62 per cent. Dr. A. E. Boycott kindly reported that blood-films showed nothing abnormal in the red and white cells; the average diameter of the red cells was $7.4\ \mu$. The blood-serum contained bilirubin. The resistance of the (washed) red corpuscles to graduated hypotonic salt solutions was kindly tested by Dr. Dorner, and was found to be about the average or slightly above the average for normal individuals.

On January the 28th, 1910, paracentesis abdominis was performed and 5200 c.c. of clear ascitic fluid of rather low specific gravity (sp. gr. 1007) were withdrawn. On February the 10th I noted that the belly was again distended with ascites and that there was occasional slight fever. On February the 17th a second paracentesis abdominis yielded 8500 c.c. clear ascitic fluid; specific gravity 1006. The patient had increasing cachexia. A third paracentesis abdominis (March the 10th) gave 10,300 c.c. clear yellowish fluid (albumin 4 per mille by Esbach's tube). On March the 21st a fourth tapping showed that the ascitic fluid (10,600 c.c.) contained an admixture of pus-cells and gave a decidedly positive Rivalta's reaction. Death occurred on March the 22nd. At the end some minute hæmorrhages into the skin of the abdomen were observed.

Necropsy and microscopical examination.—The brain (weight, 46 oz.) and the cerebro-spinal fluid in the ventricles were not bile-stained. The heart (weight, 8 oz.) showed no valvular disease, but there were a few patches of pericarditic thickening. The lungs showed a certain amount of chronic collapse.

The peritoneum contained a considerable quantity of bile-stained ascitic fluid, slightly turbid from the presence of pus. There was some thickening and a good deal of vascular injection of the peritoneum and mesentery.

The *liver* weighed only 26 oz., was contracted, and had a "hobnail" surface. There were minute capsular hæmorrhages. Macroscopic and microscopic examination showed a medium degree of multilobular cirrhosis. The gall-bladder was adherent to the intestine by an old adhesion. No cholelithiasis.

The *spleen* was large (weight, 33 oz.), and microscopical sections showed the presence of an extraordinary degree of chronic fibrosis. Nothing of special importance was noted in the other organs. There were some petechiæ in the gastric mucosa. Dilatation of

veins was found in the œsophagus. Some reddish lymph-glands were observed near the liver. The thoracic duct contained bile-stained fluid. The bone-marrow (shaft of the left humerus examined) was red throughout. No lardaceous change in the viscera was discovered.

In the foregoing case it is possible, but not certain, that an inherited syphilitic taint was the cause of the great enlargement and fibrosis of the spleen, and that it likewise predisposed the hepatic tissue to cirrhotic changes. As to the possible influence of alcohol, it is worth while mentioning that the mother used at one time to give the child a small "drop" of brandy and water when she was not well, and, later on, the child used to take stout for a time. The great enlargement and advanced fibrosis of the spleen make it improbable that the condition of that organ was entirely secondary to the cirrhosis of the liver.

REMARKS ON THE SPLENOMEGALY OF INHERITED SYPHILIS IN CHILDREN.

On February the 8th, 1909, I showed a boy, John B—, aged 11 years, with chronic enlargement of the spleen and liver, at the Medical Society of London.* The spleen, of rather hard consistence, reached two or three finger-breadths below the ribs. The liver bulged forward in the epigastric region, and its lower edge could be felt two finger-breadths below the costal margin in the right nipple line. There was frequent slight bleeding from the nose or gums. The boy had a rather cachectic appearance, but was not really anæmic. Indeed, whilst he was under observation at the German Hospital (December, 1908, to May, 1909) his red blood-corpuscles were found to vary in number between 5,500,000 and 7,000,000 in the c.mm. of blood. The liver was apparently becoming cirrhotic. Calmette's ophthalmo-reaction and Pirquet's cuti-reaction for tuberculosis both gave negative results. There was a doubtful history of jaundice in 1907. No certain signs of inherited syphilis could be discovered, though there were points in favour of the presence of this taint. I hear that in October, 1910, he was admitted into the Hackney Union Infirmary with ascites. His belly was tapped three times before his death in December, 1910. The assistant medical officer, who made a post-mortem examination, kindly informs me that the liver was cirrhotic, exceedingly shrivelled and tough, with a very irregular and nodular surface. The spleen was big and apparently somewhat fibrosed. The mesenteric lym-

* F. P. Weber, 'Trans. Med. Soc. London,' 1909, vol. xxxii, p. 368.

phatic glands were enlarged. There was hydrothorax and hydro-pericardium, but no organic disease of the heart or lungs.

In children with splenomegaly supposed to be due to inherited syphilis hepatic cirrhosis is often likewise present.* In September, 1910, I saw a boy, Edward S—, aged $11\frac{1}{2}$ years, with splenomegaly, apparently connected with an inherited syphilitic taint. As in the previous patient (John B—) the teeth were not well formed, but were not distinctly "Hutchinsonian." The spleen extended downwards nearly to the umbilical level. The liver could not be felt. There was a history of two attacks of jaundice, close together, about two years previously. There were no definite signs of inherited syphilis, except that the Wassermann sero-reaction for syphilis (kindly tried by Dr. H. R. Dean at the Lister Institute) was positive. The boy afterwards developed nephritis and ascites and died in January, 1911, of uræmia. At the necropsy the liver (weight, $23\frac{1}{2}$ oz.) was found to be cirrhotic, of the ordinary multilobular and hobnail type. The spleen weighed 14 oz., and was of rather firm consistence; there were patches of old perisplenic thickening of the capsule. The kidneys (weight together, 17 oz.) appeared hyperæmic and swollen. The mesenteric glands were moderately enlarged. Dr. J. C. G. Ledingham kindly looked over the microscopic specimens with me. The sections of the liver showed ordinary multilobular cirrhosis with a parenchymatous degenerative change of centro-acinous distribution. The hepatic cells were loaded with fat-droplets (stained with Sudan III). The kidneys showed parenchymatous nephritis. The spleen showed great congestion of the pulp and considerable small-cell infiltration about the vessels and trabeculæ. There was no history of alcohol to account for the hepatic disease. In this case the hepatic cirrhosis may have preceded and caused the enlargement of the spleen, as it apparently did in the following case, in which no evidence of syphilis was obtained.

Several years ago a girl, aged 6 years, was under observation at the German Hospital, and the presence of hepatic cirrhosis was suspected on account of persistent slight jaundice, considerable enlargement and hardness of the spleen, and a rather abnormally small area of hepatic dulness. Slight enlargement of the superficial abdominal veins was likewise noted. Some months later the child was readmitted with empyema and jaundice, and died. At the necropsy the liver weighed 15 oz. and showed coarse "hobnail"

* Cf. Robert Hutchison's remarks at the Annual Meeting of the British Medical Association, 1908.

cirrhosis. Large portions of it consisted apparently merely of rather soft fibrous material. The spleen weighed 10 oz. No certain history of congenital syphilis or alcohol could be obtained, though the mother drank gin when suckling the child.*

In two brothers, I. C—, aged 13 years, and S. C—, aged 10 years with splenic enlargement of uncertain origin, whom I showed at the Medical Society of London on February the 12th, 1906,† I could get no evidence of inherited syphilis and did not suggest that diagnosis. In neither of the brothers was the anæmia more than very slight. I saw the elder one again in February, 1908, when the spleen was still considerably enlarged and the lower edge of the liver could just be felt. Dr. R. Hutchison kindly told me that this patient was in the London Hospital in November, 1909, in much the same condition as I noted in 1906, except that he had developed signs of pleurisy at the base of the right lung. The splenomegaly in the case of the younger brother (S. C—), whom Dr. Hutchison likewise examined about that time, seemed to have disappeared.

In cases of splenomegaly connected with inherited syphilis the anæmia seems seldom to be great, even when the general appearance of the patient is cachectic. In some cases there may even be a condition of polycythæmia. In John B—, to whose case I have referred, the red blood-corpuscles were always in excess, and in the case of a girl whom I have seen in private, the polycythæmia was for a time so striking a feature that the case might almost have been called one of "syphilitic splenomegalic polycythæmia." When last seen (at the age of nineteen) she was far behind the normal in general and sexual development, and her spleen reached downwards to the level of the umbilicus. A striking feature of the case, in addition to the polycythæmia (which has now apparently disappeared), has been the recurrence of attacks of abdominal pain ("abdominal crises") of uncertain nature.

I cannot here enter into the scattered literature on the *splenomegaly of inherited syphilis*, but shall confine myself to summing up a few conclusions which, from a study of my own and other cases and the literature, have appeared reasonable to me :

(1) Moderate splenomegaly in children about the ages of five to

* In regard to a history of alcoholism in the parents of children with hepatic cirrhosis without any personal history of alcoholism in the children themselves, compare F. P. Weber's case, 'Trans. Path. Soc., London,' 1895, vol. xlv, p. 71; A. W. Fox's case, 'Brit. Med. Journ.,' 1878, vol. ii, p. 913; G. A. Sutherland's case, 'Proc. Roy. Soc. Med.' (Section for Disease in Children), 1909, vol. ii, pp. 65, 228; also G. A. Petrone's paper in 'La Pediatria,' Napoli, 1903, second series, vol. i, pp. 697-707.

† F. P. Weber, 'Trans. Med. Soc. Lond.,' 1906, vol. xxix, p. 410.

sixteen years may be almost the only evidence of an inherited syphilitic taint, but in such cases Wassermann's sero-reaction for syphilis (if available) would doubtless generally give a positive result. Other evidence of inherited syphilis is occasionally forthcoming: the teeth may be more or less of the "Hutchinsonian type," there may be interstitial keratitis, persistent cracks at the corners of the mouth, a history of skin-eruption in babyhood, a history of syphilis in the parents, or of inherited syphilis in brothers and sisters.

(2) The splenomegaly of inherited syphilis is often accompanied by occasional (usually only slight) attacks of obstructive jaundice and by excess of urobilin (and urobilinogen) in the urine.

(3) Hepatic cirrhosis, with or without ascites, may be associated with the splenomegaly, and at the time of death the hepatic cirrhosis in such cases is probably usually of the ordinary multilobular "hobnail" type.

(4) Though it seems doubtful that the cirrhosis of the liver in these cases is of specific syphilitic origin, it is quite possible that the presence of an inherited syphilitic taint may diminish the resistance of the liver towards the action of toxins (including alcohol) and render it specially liable to cirrhosis.

(5) The inherited syphilis in these cases may be—but often is not—associated with some degree of "infantilism," *i. e.* more or less retardation in general physical development and especially in the sexual functions.

(6) In these cases great caution must be employed with regard to anti-syphilitic, especially mercurial, treatment, probably on account of the general delicacy of the patients and their liability to renal and catarrhal complications. Iodide of iron seems to be useful.

(7) In these cases there is generally very little real anæmia, even when the general appearance of the patient is cachectic; and anæmia, if present, is often only temporary. In some cases, on the contrary, there may be a certain amount of polycythæmia, probably of reactive nature, sometimes sufficient to constitute a symptom-complex, which might be termed "splenomegalic polycythæmia of inherited syphilis in children."

(8) Other unknown (toxæmic?) conditions may cause splenomegaly and recurrent jaundice in children, similar to that met with in cases of inherited syphilis. "Abdominal crises" (pain, etc.), of uncertain explanation, may occur occasionally both in the inherited syphilitic and in the other cases.

(9) Cases of "familial" splenomegaly occurring in two or more

brothers or sisters may occasionally be connected with an inherited syphilitic taint, but familial splenomegaly in children (I mean splenomegaly occurring in two or more brothers or sisters who survive the period of infancy*) is better recognised in connection with congenital chronic acholuric (so-called "hæmolytic") jaundice,† and with primary splenomegaly of the "Gaucher type."‡

(10) Splenomegaly in children may be the most important sign of the presence of hepatic cirrhosis, when the former is either secondary to, or due to the same cause as, the latter.

(11) Some cases of splenomegaly in children with inherited syphilis probably ultimately present the characteristic clinical features of splenic anæmia or Banti's disease.§

REMARKS ON THE TREATMENT OF CONGENITAL SYPHILIS WITH ARSENOBENZOL ("606").

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"SYPHILIS is a chronic disease and requires chronic treatment" (Fournier). Such is the doctrine which has led to the modern treatment of syphilis by prolonged administration of mercury. Does this doctrine still hold good, or is there a short cut to salvation by means of abortive treatment?

Hitherto, attempts to abort syphilis have, as a rule, failed; but recently a new arsenical preparation has been invented by means of which it was hoped that an abortive cure might be realised, and

* Therefore, I do not here refer to the splenomegaly of infants who die with so-called "congenital obliteration of bile-ducts," or to the splenomegaly in cases of "familial icterus gravis neonatorum." On the latter class of cases see especially J. Pfannenstiel, 'Münch. med. Wochens.,' 1908, lv, pp. 2169, 2233; Nahm, *ibid.*, 1909, lvi, p. 139; and H. D. Rolleston, 'Brit. Med. Journ.,' 1910, vol. i, p. 864. Pfannenstiel and Rolleston give references to a good deal of literature on the subject.

† For the literature on the subject see F. P. Weber and G. Dorner, "Four Cases of Congenital Acholuric (so-called Hæmolytic) Jaundice in one Family," 'Lancet,' 1910, vol. i, pp. 227-232.

‡ References to the literature on the Gaucher type of splenomegaly are given by Weber and Dorner, 'Lancet,' 1910, vol. i, p. 232 (footnote); see also R. Hutchison and J. C. G. Ledingham, in Allbutt and Rolleston's 'System of Medicine,' 2nd edition, vol. v (1909), pp. 778-780.

§ The connection of some cases of Banti's disease with congenital or old acquired syphilis has been suggested by F. Marchand and others. See Marchand, "Zur Kenntnis der sogenannten Banti'schen Krankheit," 'Münch. med. Wochens.,' 1903, l, p. 463.

prolonged treatment by mercury rendered unnecessary. That such expectations are not likely to be fulfilled I have elsewhere pointed out. (1) I have also drawn attention to the fact that the so-called treatment of syphilis with "606" is a misnomer; it is true that some of the manifestations of syphilis undergo temporary resolution under this drug, but this is not the same thing as the treatment of syphilis.

Before dealing with the administration of arsenobenzol in cases of congenital syphilis, it will be well to give a summary of the conclusions arrived at:

(1) There is no proof that an abortive cure of syphilis, or *therapia sterilisans magna*, can be affected by "606" or any other drug.

(2) There is no evidence that tertiary or parasyphilitic manifestations can be prevented by arsenobenzol; in fact, it would take many years to prove this.

(3) Arsenobenzol certainly has a rapid healing effect on certain syphilitic lesions, chiefly of the ulcerative type, but this effect is not constant and is often only temporary.

(4) If arsenobenzol is indicated at all, it is chiefly in those cases which are not influenced by mercury; but such cases are rare. Moreover, there are cases which resist both drugs.

(5) Arsenobenzol has numerous contra-indications.

(6) It appears to have little or no effect on visceral syphilis and parasyphilitic affections.

(7) The injection, especially the intra-venous injection, of this drug is attended with grave risks to the patient.

(8) In the present state of our knowledge there is no drug which can replace mercury in the treatment of syphilis.

In congenital or hereditary syphilis, arsenobenzol, like mercury, may be given directly or indirectly through the mother's milk.

Direct administration.—One advocate of "606" (2) has suggested that the treatment of congenital syphilis with this drug may result in a diminution of infant mortality. Whether such a consummation—the survival of syphilitic infants—is to be desired from the eugenic point of view is a question which does not concern us here, but such survival does not receive much support from the statement that Wechselsmann treated five cases, two of which recovered and three died. Such a mortality (60 per cent.) certainly compares unfavourably with the usual results of mercurial treatment.

Herxheimer and Reinke (3) reported two cases of congenital syphilis in which death occurred shortly after injection of arseno-

benzol. The first case, a child aged 2 months, received 0.04 gm., and died on the fourth day. The second child, aged 2 months, received 0.025 gm., and died on the second day. In both cases necrosis of the gluteus muscles occurred. It is stated that no spirochaetes were discovered in any of the organs except the lungs, where they were in a state of agglutination and degeneration, and that this is a proof of the destructive action of the drug on these organisms. This may be of scientific interest, but our primary object is to cure the patient, not to make post-mortem demonstrations of dead spirochaetes. It is also stated that it would have been impossible to save the children by any other method, but was any other method tried? It is, of course, impossible to say whether these and other reported fatal cases could have been saved by mercurial treatment, but it is common knowledge that even severe cases of congenital syphilis are peculiarly amenable to such treatment.

Some observers have attributed the fatal issue in such cases to a sudden liberation of endotoxins from the destruction of spirochaetes. This is purely theoretical; more probable explanations would be that the infants succumbed to the toxic effects of the drug or to shock caused by the pain of the injection.

On the other hand, Sequeira (4) reports a successful case in which severe symptoms of congenital syphilis cleared up after two injections of "606" (0.02 and 0.06 gm.). But it is too early yet to tell whether a relapse will not occur.

Indirect administration.—Cases have been reported by Sequeira (4), Duhot (5), Taege (6) and others in which symptoms of congenital syphilis disappeared in infants suckled by mothers who had been injected with "606." As little or no arsenic was found in the milk, it has been assumed that the effect is due to the presence of an antitoxin excreted in the milk.

One of Sequeira's two cases is vitiated by the fact that the child had been previously treated by mercurial inunction. This objection may possibly apply to other cases; moreover, it should be expressly stated whether the mother had received mercurial treatment, and if so, in what form. However, granted that neither child nor mother had had previous mercurial treatment, it is a wrong use of words to call this a form of treatment for congenital syphilis. Even if the hypothetical antitoxin causes the symptoms to disappear in the infant, this disappearance is almost certainly only temporary. In the first place it is almost impossible to conceive that the disease can be aborted in the infant by the amount of antitoxin excreted in the milk after one injection of the mother with "606"; secondly, it is

manifestly impracticable, even if it were safe, to continue injecting the mother during the period of suckling. In short, such phenomena, although of scientific interest, cannot be regarded as of any practical value.

We now know that in the case of acquired syphilis relapses are common after injection of "606," and are becoming more and more frequent as time elapses. We also know, as Lane (7) has pointed out, that cases reported as "cured" have subsequently relapsed. There is no reason to believe that congenital syphilis differs from the acquired disease in its reaction to "606," and we are therefore justified in assuming that in all probability cases of congenital syphilis will relapse after this treatment, whether given by the direct or the indirect method.

On the other hand, it is well known that cases of congenital syphilis treated rationally with mercury—by hydrarg. cum creta in the milder forms and by inunction in the severer forms—do remarkably well in the great majority of cases, and if the treatment is continued a sufficient length of time the development of tertiary manifestations (late congenital syphilis, or *syphilis héréditaire tardive*) may be to a great extent prevented. As Fournier and Hutchinson have repeatedly urged, the essential element in the treatment of syphilis is the continuation of such treatment for prolonged periods. Whether this is carried out by Fournier's intermittent or Hutchinson's continuous method matters little; the main point is continuation for several years, the number of years varying according to the severity of the case, but never being less than two. In the case of congenital syphilis the same rule should apply, and it is probable that if every syphilitic infant were treated for two years with mercury we should see much less of saddle-shaped noses, interstitial keratitis, and other signs of late congenital syphilis.

Now, if a relapse occurs in a patient who is still under mercurial treatment, it usually heals when the preparation of mercury or its mode of administration is changed, or when iodides are added to, or substituted for, mercury. But in the case of a patient injected with "606" a relapse necessitates one of two things: (1) A second injection of "606," which may very possibly have less effect than the first; (2) abandonment of the treatment in favour of mercury or iodides, in which case valuable time will have been lost. Again, if a relapse occurs after the first injection of "606," why not after the second or third? In any case such a method is contrary to the established principle of continuous and prolonged treatment.

It seems to me that the only justifications for using arsenobenzol

or any other arsenical preparation in syphilis should be—(1) the possibility of effecting an abortive cure; (2) the cure of lesions which fail to react to the usual treatment. First, there is no evidence to show that any such abortive cure has ever been realised, and also no possibility of proving such a cure in the human subject. Secondly, so-called failure of mercurial and iodide treatment is more often due to the method of administration than to the drugs themselves or any idiosyncrasy of the patient. Routine methods of treatment are responsible for many failures, and there are very few cases of syphilis which cannot be healed by varying the preparations of mercury and iodide or their modes of administration. Moreover, it has been shown that some cases of syphilis are resistant both to mercury and to “606” (Gaucher [8]); also that cases which relapse under “606” may improve under mercury (Lane [7]). The foregoing remarks apply equally well to acquired and congenital syphilis.

At the discussion following Mr. Ernest Lane’s paper on “The Treatment of Syphilis by Arsenical Compounds,” Sir Almroth Wright (7) is reported to have said that “606” undoubtedly caused the disappearance of the spirochæte, and therefore cured syphilis, clinical manifestations to the contrary notwithstanding. According to this view the treatment of microbial diseases is simplicity itself—all we have to do is to kill the microbes and the disease is cured, no matter what happens to the patient. Obviously, the most thorough method of carrying out this treatment would be by cremation. But as the majority of medical practitioners have to gain a precarious livelihood by attempting to keep their patients alive, this simple and effective method does not help them much. It is small consolation to bereaved parents to be told that although their child is dead and buried the disease it was suffering from has been cured.

Another enthusiast refers to “606” as an “epoch-making discovery.” That this is true in the sense intended is now, to say the least of it, open to scepticism, but that a discovery of some sort has been made is painfully apparent—that the medical profession is not completely immunised against the proverbial gullibility of human nature.

In conclusion, I venture the opinion that, even if there were no dangers connected with the administration of arsenobenzol, there is no justification for its employment in congenital syphilis, and that the dangers (all of which are probably not yet known) render its employment absolutely contra-indicated. I would even go further,

and predict that should the "treatment" of syphilis (congenital or acquired) with this drug ever become general, and replace mercurial treatment, there will be an increase both in the amount and in the severity of tertiary manifestations, and a rise instead of a fall in infant mortality.

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- (2) BRITISH JOURNAL OF CHILDREN'S DISEASES, 1910, vi, p. 449.
- (3) 'Dent. med. Woch.,' 1910, p. 1790.
- (4) BRITISH JOURNAL OF CHILDREN'S DISEASES, 1911, vii, p. 49.
- (5) 'Münch. med. Woch.,' No. 34, 1910, p. 1825.
- (6) *Ibid.*, No. 33, 1910, p. 1725.
- (7) 'Lancet,' 1910, ii, p. 1766.
- (8) 'Bull. de l'Acad. de Méd.,' 1910, lxiv, p. 264.

THE VENOUS MURMURS HEARD AT THE ROOT OF THE NECK IN CHILDREN.

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For several years I have been keeping records of the various exocardiac circulatory bruits heard over the chest-wall. This short paper is a summary of such observations in so far as they refer to the venous hum, described by Dr. Eustace Smith (1) as a sign of tuberculosis of the mediastinal lymph-glands.

The publication of these facts has been prompted by the appearance of Dr. J. E. H. Sawyer's paper (2), whose conclusions are in agreement with my own in the main.

The presence or absence of this murmur was noted in 100 consecutive patients of all ages up to fifteen years, without respect to the nature of the disorder for which they were brought to me.

The following tables summarise the results:

	Total examined.		Murmur found.		Percentage with murmur.
Boys	42	.	26	.	61·8
Girls	58	.	25	.	43·1
Total	100	.	51	.	51·0

Age of patient.	Total examined.	Murmur found.	Percentage with murmur.
0-24 months . . .	20	1	5.0
24 months-5 years . . .	24	14	58.3
6-10 years . . .	30	23	76.6
11-15 years . . .	26	13	50.0

A general examination of persons over sixteen years of age showed that it was unusual to find any such murmur, apart from a few cases of chlorosis and other general anæmias.

The murmur is heard in the region of the sterno-clavicular articulations. My remarks as to its variations apply to the results of auscultation at the area immediately *below* the two sterno-clavicular articulations; and they are based on observations of the 51 children already alluded to, with others in addition in whom the murmur was noted.

Position of maximum intensity (65 cases).—Murmur heard on both sides in 60 per cent., 39: equal on both sides, 9; louder on right side, 21; louder on left side, 9. Murmur heard on one side only in 40 per cent., 26: on right side only, 21; on left side only, 5. Thus, murmur heard pre-eminently or exclusively on right side in 64.6 per cent., 42.

Effect of retraction of head (58 cases).—Murmur increased in intensity, 35; murmur developed (absent with head erect), 14; murmur unaffected, 9.

Effect of lateral rotation of head (10 cases).—Murmur increased in intensity, 6; murmur unaffected, 4.

Effect of recumbent posture (12 cases).—Murmur diminished or obliterated, 11; murmur increased in intensity, 1.

Effect of respiratory movements (55 cases).—Murmur loudest in inspiration in 89.1 per cent., 49; murmur loudest in expiration, 4; murmur unaffected, 2.

Effect of cardiac movements (64 cases).—Murmur loudest in diastole, 27; murmur loudest in systole, 23; murmur equally loud in systole and diastole, 14.

N.B.—From my later and more accurate observations I think that the diastolic augmentation of the murmur is more frequent than the above figures suggest.

The figures bring out the following facts:

(1) The murmur, if bilateral, is usually louder on the right side; if unilateral, it is heard more often on the right side.

(2) With the head thrown well back the murmur becomes audible when it was not heard before, and more clearly audible even when it was heard before with the head erect.

(3) In most cases the murmur is audible even when the head is held erect. Often it is but faintly heard and can only be detected by careful auscultation.

(4) Lateral rotation of the head is also likely to bring the murmur out more clearly.

(5) If the patient lies down the murmur usually disappears.

(6) As a rule, the bruit is louder during inspiration.

(7) The murmur is louder during cardiac diastole more often than during systole.

The murmur is a hum continuous through systole and diastole, but accentuated at the beginning of each phase; the diastolic accentuation is often very definite. In one case this was so marked that the murmur, which was heard unusually low down on the thoracic wall, simulated that of aortic regurgitation. It is usually low-pitched, and strongly reminiscent of the chlorotic "*bruit de diable*"; sometimes it is quite high-pitched.

Three questions, closely connected with each other, have to be answered. How is the bruit caused? Is it a sign of disease? Is it, in particular, a sign of tuberculosis or enlargement of the mediastinal lymphatic glands? It will be best to take the most limited of these questions first.

(A) This murmur is not specially associated with tuberculous adenitis within the thorax. That it was heard in 51 out of 100 consecutively examined children, some of whom were normal to all appearance, and others suffering from divers maladies, is strong evidence against its origin in any tuberculous process. Again, the age-incidence of the murmur does not coincide with that of tuberculosis. Even stronger is the fact that I have found it in healthy children whom I have known from birth onwards, children who have in the first three or four years of life (*i. e.* up to the date of examination) shown no evidence whatever of disease of any kind. Finally, in cases which were almost certainly examples of tuberculosis of the intra-thoracic glands, the murmur may be absent.

A boy, aged 12 years, came under my notice at the Bristol General Hospital, whose mother complained that he was wasting, feverish at night, and lacking in appetite. Examination of the chest showed a very definite area of dulness beneath the manubrium and to either side of it, impairment of resonance, with occasional crepitant râles at the left apex, and marked distension of the left external jugular vein. Under treatment the symptoms abated, but the physical signs remained, and within a year the condition became acute; there were distinct evidences of consolidation at the left apex, and the

boy died. There were tubercle bacilli in the sputa. Almost certainly this was a case of "bronchial phthisis" and lymph-borne invasion of the left upper lobe; and yet throughout the whole course of the disease the venous hum was never to be heard. As for other cases of the kind, the murmur has been present in some, absent in others.

(B) The second question has already been partly answered; it is clear that a murmur which is to be heard in a fair number of healthy children cannot be regarded as a sign of any gross organic disease. In several cases, however, the murmur was heard during a day or two of fever (due to acute coryza), but disappeared as the temperature returned to normal. In thin, anæmic children it seems more likely to be heard than in stout, well-favoured ones. It is probable that in some cases anæmia and fever may cause this murmur to appear in the same way as they do bruits at the cardiac base. In chlorotic girls, and in persons suffering from severe anæmia, whether "idiopathic" or post-hæmorrhagic, the venous murmurs of the neck are sometimes to be heard below the sterno-clavicular joints also.

(c) Accepting, then, the inevitable belief that this murmur may occur in healthy as well as in debilitated children, we have to look for some means of explaining the mechanics of its production. The search for a theory has only been successful in so far that an incomplete explanation has been found. First of all, the bruit is certainly venous; it is heard over the internal jugular veins in the neck and over the innominate veins beneath the manubrial area; it is continuous, but accentuated with systole and diastole, like a venous hum; and it is louder during inspiration and (in many cases) during diastole, periods in which the stream of blood entering the thorax through the chief veins is most rapid. Before we can say why there should be a murmur in the veins of so many children between the ages of three and fifteen, it will be necessary to know what is the causation of venous hums in general. In many cases, without doubt, the murmur is produced at some point in the internal jugular veins without the thorax, for it is heard in the neck even more clearly than it is over the chest-wall; and its inception or augmentation by postures which stretch the jugular veins must be due, as Dr. Sawyer says, to flattening of the lumen of the vessel by pressure against the transverse processes of the lower cervical vertebræ. I have in a case of thyroid tumour in a lad, aged 19 years, noted loud venous murmurs in the neck and below the sterno-clavicular joints, which were, I suppose, caused by compression of the internal jugular veins at their point of contact with the tumour.

Summary.—(1) In a majority of children varying in age from three to fifteen years a murmur was heard immediately below the sternoclavicular joint or joints. It is slightly commoner in boys. It is commoner and louder on the right side.

(2) This murmur is continuous, but accentuated at the beginning of systole and of diastole, especially the latter.

(3) It is at its loudest during inspiration.

(4) Though often heard with the head in the erect position, it is in such cases heard more clearly, and in some other cases heard only, when the head is fully retracted. Lateral rotation of the head also makes it more clearly audible. It is usually abolished when the patient lies down.

(5) It is produced in the internal jugular veins; by what mechanism is not clear, though its accentuation by retraction of the head is no doubt due to flattening of the veins against the transverse processes of the cervical spine.

(6) Though associated with anæmia and febrile states, it is heard also in perfectly healthy children.

(7) It is not specially associated with tuberculosis or any enlargement of the intra-thoracic lymph-glands, and has no diagnostic value.

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- (2) SAWYER, J. E. H.—BRITISH JOURNAL OF CHILDREN’S DISEASES, July, 1910, No. 79, p. 310.

THE DIFFERENCE BETWEEN THE MANIFESTATIONS OF RHEUMATISM IN CHILDHOOD AND ADULT LIFE.*

By J. BOYD BARRETT, M.B., B.Ch.

“RHEUMATISM,” says Dr. Still, “is one of the many diseases which illustrate the considerable difference which may exist between the manifestations of one and the same disease when it occurs in an adult and when it occurs in a child.”

Almost the same words are used by Dr. C. H. Dunne, of Boston, when he says that there is no disease in which the clinical pictures are more widely different in childhood and in adult life. That these remarkably similar statements are true is quite evident to anyone

* A paper read at the Royal Academy of Medicine in Ireland (Section of Medicine), February the 10th, 1911.

who has experience of the characteristics of rheumatic attacks in early life. The rare occurrence of joint complications in children, the frequency of chorea, and the presence of rheumatic tonsillitis and rheumatic nodules, with their grave significance, alone prove how great this difference may be.

(1) *Manifestations*.—The chief manifestations of rheumatism in children have been given as follows: Articular inflammations; muscular rheumatism; rheumatic nodules; endocarditis, myocarditis, and pericarditis; erythematous eruptions of various sorts, including erythema nodosum; chorea; pleurisy; and lastly, tonsillitis.

These manifestations are not mentioned in the order of their frequency or importance. They emphasise, however, in what various ways rheumatic infection shows in the child.

It will be noticed that hyperpyrexia with acute polyarthritides of adults is omitted, while many forms are mentioned which are confined to early life.

Dr. C. H. Dunne, writing in the 'American Journal of Medical Science,' July, 1908, about the peculiarities of the symptomatology of rheumatism in children, calls special attention to the frequency with which rheumatism in children may make its onset with cardiac symptoms alone. He says that it begins with arthritic symptoms in only 40 per cent. of all cases, and gives the following interesting clinical classification:

(a) The mild arthritic; (b) the severe arthritic of older children; (c) latent type, beginning with fever; (d) mild primary endocarditis; (e) severe primary endocarditis with fever and incompetency; (f) mild pericarditis; (g) severe pericarditis, always with effusion.

Most, I think, will have had experience of all these clinical types of the disease, and many will agree that the mild arthritic and the mild primary with endocarditis are the most important to recognise. In these cases the absence of symptoms of urgency renders them liable to be overlooked, and the diagnosis may not be made until the cardiac lesions are obtrusive and irreparable, where early rest might have been of advantage. Anæmia of a mild type is generally present.

(2) *Rheumatic facies*.—Efforts have been made to associate with rheumatism in children a typical facies. While this may not have been entirely successful, most are agreed upon the frequent presence of a nervous temperament. The rheumatic child is often of a restless and excitable disposition.

I will quote the description of the rheumatic child given by Dr. Hutchison. It is of great interest and importance, but I am inclined

to think it is of more advantage in dealing with the community amongst whom Dr. Hutchison's labours are spent.

"These children," writes Dr. Hutchison, "are dark rather than fair; their hair is dark, their eyes are dark, and they have long, dark eyelashes. At the same time they have a peculiar white skin and a very good complexion; they have a clear bluish-white sclerotic, and they have often well-formed teeth and large, square, central upper incisors." On the other hand Dr. Still emphasises the association of red hair with rheumatism. "Out of eighty children with red hair," he states, "there was rheumatism either in the child or in the family in forty-seven."

(3) *Wasting*.—One of the causes of wasting in children which should not be overlooked is advanced cardiac disease subsequent to rheumatic endocarditis, often without any history of inflammation of the joints.

(4) *Anæmia*.—The occurrence of anæmia as a complication or associate of rheumatism is more frequent in the child than in the adult. It is more marked in the severe cases with advanced cardiac lesions. The blood is characterised by a diminution in the number of red corpuscles and greater reduction in the percentage of hæmoglobin. There is usually a leucocytosis.

(5) *Rheumatic nodules*.—The occurrence of rheumatic nodules in children further increases the difference between the adult form and that common to children. These nodules are found in young adults, and have been recorded lately by Dr. H. D. Rolleston as occurring on the external ears. They are also doubtless found late in life, but more rarely. They are associated with, and diagnostic of, the disease in children.

These nodules are round or almond-shaped, quite hard, and freely movable. They occur under the skin, and usually over bony prominences, such as the olecranon or patella. Many may be present, or there may be only one. I have lately observed two cases, each showing one nodule. In one the nodule was on the outer and posterior part of the pinna of the external ear, and in the other a large one was found over the olecranon.

In structure they are fibrous, the fibres being arranged concentrically around a core of fibrin. They are associated with endocarditis, and, according to Dr. Cheadle, when really large are equivalent to a sentence of death.

(6) *Tonsillitis*.—Of rheumatic tonsillitis it is difficult to speak with certainty. The diagnosis is often provisional, and may remain always doubtful unless the unfortunate occurrence of sequelæ or

complications, such as endocarditis, prove confirmatory. In such cases the inflammation extends to the soft palate. I have seen it in association with erythema when the diagnosis had to be made from atypical scarlet fever. That, however, was not a difficult matter. The rash was not punctiform, the symptoms were mild, and sweating was profuse. To lay stress on the frequency and importance of rheumatic tonsillitis in children I have tabulated the following remarks:

(i) *Tonsillitis followed by polyarthritis*.—At the Philadelphia Pediatric Society, May, 1909, Dr. Newlin showed a boy with polyarthritis, which developed after an attack of tonsillitis lasting one week. There was an increased area of cardiac dulness and a blowing systolic murmur at the apex, transmitted to the axilla. The attack of tonsillitis occurred in 1908, and two weeks afterwards the knee-joints became swollen, stiff, and painful.

(ii) *Endocarditis and pericarditis following tonsillitis*.—(a) At the Philadelphia Pediatric Society recently Dr. Simonis exhibited the heart of a girl aged 6 years. She had had frequent attacks of follicular tonsillitis. Autopsy showed adherent pericardium and a large vegetation, cylindrical in shape, half filling the left auricle and ventricle, and attached to the papillary muscle in the ventricle (BRITISH JOURNAL OF CHILDREN'S DISEASES, June, 1910, p. 268).

(b) Dr. Wachenheim ('Pediatrics,' 1908, p. 466) states, as a result of examination of 113 cases of rheumatism in children, that 60 per cent. of the cases had undoubted cardiac lesions, that the joints were not involved to any extent until after the fourth or fifth year, and that tonsillitis was a very frequent complication.

(iii) *Frequency of tonsillitis*.—McCrae gives 3·7 per cent. of cases of rheumatism showing tonsillitis, while Hammerschmidt gives 50 per cent., and says that all his cases showed some pharyngeal irritation. Other observers range between these two.

Gurich has reported that certain cases of rheumatism show a reaction when the tonsil is operated upon, and he believes that there is a tonsillar type of rheumatism in which the removal of the tonsillar tissue cures the disease.

(7) "*Growing pains*."—The seriousness of "growing pains" in children has frequently been urged by many who believe in their relation to rheumatism, and grave disasters have been attributed to the neglect of rest and anti-rheumatic remedies in these cases. The question will always remain unsettled, because a history of "growing pains" can so often be elicited. Much can be gained by the discussion of this interesting point if it prevents us overlooking

what may appear trivial, and yet may be an indication of a serious condition or of danger ahead.

Dr. Coudray, writing recently in the 'Gazette Médicale de Paris,' states that these pains have nothing to do with growth, and are observed in children or young adults who present a defective balance of nutrition and are the offspring of arthritic parents.

(8) *Chorea*.—It is not intended to refer to chorea at any length. Although confined to childhood it is amply treated in the usual medical text-books.

The relationship of this condition to rheumatism resolves itself into the investigation of the statistics of clinical and pathological reports of the last sixty years, characterised by a remarkable preponderance of opinion in favour of the nearness of their connection and ending in the researches of Poynton and Paine.

It is only necessary in this instance to state that if chorea be undoubtedly a manifestation of rheumatism it further emphasises the difference between the character of that disease in the child and in the adult.

(9) *Cardiac rheumatism*.—"It is very easy," according to Dr. Lees, Consulting Physician to the Children's Hospital, Great Ormond Street, in an article on this subject in this JOURNAL, March, 1909, "to overlook a cardiac rheumatism in a child unless the physical examination is promptly and thoroughly carried out, for the cardiac muscle may be grievously affected though no murmur is to be heard on auscultation and the external evidence of rheumatism afforded by arthritis, so abundant in the adult, may be almost or even entirely lacking in the child."

The earliest rheumatic cardiac phenomenon in the child is, in most cases, an acute dilatation of the left ventricle. Affection of the cardiac muscle precedes endocarditis or pericarditis, and the first evidence of an attack is obtained by careful percussion in addition to the other signs to be mentioned.

The cardiac dulness to the left almost always reaches the nipple line, and later may extend beyond it by one or sometimes two finger-breadths. Along with this evidence of dilatation there will be a diffuse or weakened cardiac impulse, a weak pulse-wave in the arteries, an enfeebled first sound at the apex, and an accentuated pulmonary and sometimes aortic second sound. The pulse-rate is abnormally frequent, and is increased after slight exertion.

It may be added that clinical experience goes to prove that the acute dilatation of the left ventricle above described is present in even the mildest attacks of "subacute rheumatism."

(10) *Treatment*.—The treatment of rheumatic attacks in childhood differs only from that necessary in adults in the great importance of early and prolonged rest. And, as Dr. Lee has pointed out, in all cases where a suspicion of rheumatism exists, where an unexplained pyrexia and rapid action of the heart are found in association with nodules, erythema, tonsillitis, choreic movements, and other signs, much may be gained and no loss incurred by insistence on rest in bed until the symptoms have subsided. Full doses of the salicylate are given with double the quantity of bicarbonate of soda. The latter is supposed to lessen the danger of acid intoxication, but it seems too presumptuous to expect that such a profound constitutional disturbance, often ending fatally, whether it be a question of idiosyncrasy or consequent on the existence of a fatty liver, can be averted, as it seldom can be cured, by doses however large, of bicarbonate of soda.

This problem is yet unsolved, and the possibility, though remote, of averting such a catastrophe as acid-intoxication will gladly be accepted by anyone who has had experience of such a misfortune. The inclusion, therefore, of bicarbonate of soda in the drug treatment of rheumatism in children may be considered justifiable.

The administration of digitalis in suitable doses is, with certain restrictions, as much a part of the treatment of rheumatism in children with cardiac complications as in adults.

(11) *As a sequela of scarlet fever*.—Rheumatism may appear at the end of the first week or during the second week of an attack of scarlet fever, after which it is rare. The onset is insidious, and endocarditis is frequently present.

(12) *Age-incidence*.—Rheumatism is very rare in any form in children under two years. It may even be said to be rare under three years. It is most frequent in its onset between the ages of six and nine years.

(13) *Stiff neck and affection of hip-joint*.—These conditions (the latter by Sir Thomas Barlow) have been associated with rheumatism in children. While it may be difficult to prove the connection, none will object to regard such indications as suspicious and worthy of observation and treatment, especially when found in those with an hereditary history of rheumatism and not due to other apparent causes.

While some of the many characteristics of rheumatism in children have been mentioned, it is impossible to conclude without referring to two conditions, one of which is entirely associated with the adult form, the other rarely found in childhood. I refer to hyperpyrexia

and acute polyarthritis. Of the former, one case with delirium has been reported by Dr. Gee as occurring in a boy, aged $6\frac{1}{2}$ years, and ending fatally.

Acute polyarthritis is characteristic of the young adult form. It is found in childhood. I have seen one case in a girl in her fourth year; but this form is not very frequent at such a youthful period, and is certainly not the most usual.

In conclusion, I would say that rheumatism in childhood differs from the adult form (1) in the variety of its manifestations, (2) in its insidious onset, (3) in the mildness of the arthritic symptoms and the corresponding severity of the cardiac trouble.

London and Provincial Societies.

ROYAL SOCIETY OF MEDICINE.

SECTION FOR THE STUDY OF DISEASE IN CHILDREN.

Friday, January the 27th, 1911.

Dr. E. CAUTLEY, *President, in the Chair.*

Intermittent Word-blindness (Congenital).—Dr. ERIC PRITCHARD showed a boy, aged $8\frac{1}{2}$ years. He was very intelligent, particularly dexterous in the finer motor mechanisms. Vision was normal, hearing good; he had one brother and one sister, both of whom were normal. The family history was unimportant. His teachers had noticed that he was particularly slow at learning to read, although he was quick at mental arithmetic, and found no difficulty in reading Arabic numerals. He could easily recognise such words as "cat," "dog," "hen," "fat," "likes," "away," when spelt aloud, but, as a rule, was quite unable to recognise the same words when written. Some days, according to the statements of two of his teachers, he could read simple sentences quite well, though on the days on which Dr. Pritchard had examined him he had been quite unable to distinguish even single letters. He could write well from dictation, and could copy written words accurately, although he did not understand their meaning unless he repeated slowly to himself the letters of which they were composed, or performed slowly the manual movements necessary for writing the same letters. Thus, though his visual memories for words and letters were defective, his auditory and kinæsthetic memories were good. The intermittent character of the word-blindness was suggestive that the condition was a psychosis rather than one due to an inherent structural fault in the visual word-centre.

Idioglossia.—Dr. ERIC PRITCHARD also showed a girl, aged $9\frac{1}{2}$ years. Her birth was three months premature, and she had always been very delicate.

Her mother's half-brother by the same father was a deaf mute. The child was noticed to be late in commencing to talk, and she was quite two years old before her speech was in any way intelligible. At school she was considered a bright child, wrote particularly well, and her composition was excellent. Her mental condition was normal, her hearing slightly defective, and when tired there was some want of attention. The speech was typically idioglossic. The vowel sounds A, E, I, O were correctly pronounced, although A was pronounced in Cockney-wise as Aye, or I. C, D, T, G were all pronounced similarly as Nee; F was pronounced as Ef-ed, H as Hay, J as Nai, P as Mee, S as Ai, U as New, V as Mew, W as Mummennew, X as Ai, and Z as Ney.

The PRESIDENT and Dr. G. DE B. TURTLE discussed the case.

Specimen from the Case of Necrosis of the Lower Jaw shown at the last meeting (*vide p. 21*).—Mr. H. S. CLOGG.—The patient was a girl, aged $7\frac{1}{2}$ years, who was admitted into hospital suffering from an acute infection of the mouth resulting in necrosis of the lower jaw. Under local treatment and the injection of anti-streptococcal serum the acuteness of the inflammation subsided. When shown at the last meeting the greater part of the alveolus was exposed and dead. Shortly after this an abscess formed near the angle of the right lower jaw, and was incised. A few days later an abscess formed on the left side and was similarly treated. It soon became evident that the whole thickness of the body of the jaw was necrosed, and it was decided to remove the dead portion, although it did not appear to be loose. An examination under an anæsthetic revealed that practically the whole body and ascending ramus on the right side were necrosed. In order to facilitate the removal of the dead portion through the mouth, the body of the bone was cut through on either side and removed. The right ascending ramus was removed in its entirety with the condyloid process. The necrosis was less extensive on the left side and involved merely the outer portion of the ascending ramus. The specimen consisted, therefore, of the whole of the lower jaw except the inner shell of the ascending ramus and condyloid process on the left side. It was now about five weeks since the dead bone was removed, and in the place of the jaw there was a firm solid arch, but whether this was bone or not it was impossible to say.

Mr. MILNER BURGESS inquired as to the hæmorrhage at the operation, which Mr. Clogg said was not excessive.

A Case of Enlargement of the Liver.—Dr. T. R. WHIPHAM showed a boy, aged 9 years, who was brought to the Prince of Wales's Hospital in the middle of December with a history of having been "out of sorts" for about a month. His appetite had been capricious and he was said to have become a little thinner. For a short time previously he had also been slightly jaundiced. He had had no pain or vomiting, no rigors, and no urticaria, in fact no marked symptoms of any kind. Neither had it been noticed that his abdomen was enlarged. When first seen the patient was a fairly healthy-looking boy with a good colour, though slightly jaundiced, and did not look at all ill. On examination the abdomen was found to be enlarged owing to the enormous size of the liver, which reached to the anterior superior spine of the ilium and as far forward as the umbilicus in the middle line. Above this the edge could be traced upwards to a deep notch, to the left of which there was a large left lobe under the left costal

margin. The epigastric angle was occupied by a large, rounded swelling, which appeared to rise from the surface of the liver. There did not appear to be any enlargement upwards, the superior limit of the dullness being at the normal level. The surface of the liver and of the epigastric prominence was smooth and firm, though the swelling was perhaps a little more elastic on pressure than the rest of the organ. The spleen was just palpable below the ribs. There was no evidence of ascites. The chest was perfectly normal, and there were no enlarged glands to be felt anywhere. The boy presented no external signs of inherited syphilis, but there was a history of the mother having had three miscarriages. The boy had been under observation for the last five weeks, and during that time there had been no change in his condition, except that he now showed no definite sign of jaundice and the spleen could not be felt. His general health had not deteriorated, and his temperature had been normal. A blood-count showed an eosinophilia of 7·8 per cent., but no other marked changes. The diagnosis suggested was hydatid cyst.

Dr. PORTER PARKINSON, Dr. CARE and Dr. SUTHERLAND, who discussed the case at some length, agreed that the case was probably one of hydatid cyst, or cysts, though Dr. Sutherland could not exclude the possibility of gumma. The President thought that the lower part was not liver and might be a hypernephroma.

Embolism of the Central Artery of the Retina.—Mr. SYDNEY STEPHENSON showed a girl, aged 11½ years, who came to the Queen's Hospital for Children on December the 15th, 1910, with the complaint that she had lost the sight of one eye. Although there was no history of rheumatism, she had suffered from pains in the legs. During the past year she had occasionally complained of giddiness and frontal headache. On December the 8th she experienced some slight pain over the left eye, and on awaking next morning she found that the sight of that eye had gone. On admission: Right vision = $\frac{5}{6}$; left vision = no perception of light. Pupils equal. The left pupil had little, if any, direct action to light, but its indirect response to light was greater than that of the other pupil. When light from an ophthalmoscopic mirror was thrown into the eyes the reflex from the right eye had its normal orange colour, while that from the left was palish. The right fundus was normal. The left fundus showed the ophthalmoscopic picture characteristic of so-called "embolism of the central artery of the retina"—namely, filiform retinal arteries—œdema in and around the yellow spot region, together with a red spot at the fovea centralis. The optic disc was blurred by the surrounding œdema. On examination of the heart a slight systolic murmur was heard. No evidence of inherited syphilis. Urine normal. No micro-organisms could be grown from the blood. On December the 22nd, 1910, the optic disc was white and badly defined at upper and lower border; it was not, however, swollen. The retinal veins were perhaps somewhat smaller than those of the right eye. There could be no doubt that the retinal arteries were smaller than normal and than those in the right eye. The œdema noted in the central region of the fundus was less marked. The central red spot could still be recognised, especially by the indirect method of ophthalmoscopic examination. When digital pressure was made upon the globe the inferior artery pulsated with great readiness, but no pulsation could be made out in the superior artery. The indirect action of the left pupil to light was good, but its direct action was very slight. Left vision, no perception of light. January the 12th, 1911:

Left vision, no perception of light. Reaction of left pupil to light sluggish. The optic disc was white. The retinal vessels were still somewhat attenuated. The contrast between the fovea centralis and the surrounding fundus was not now particularly pronounced. Wassermann's reaction negative.

Examination of the heart on January 13th was made by Dr. S. A. Owen, who reported as follows: Mitral regurgitation with slight dilatation and associated hypertrophy of the left ventricle. There is no positive evidence of mitral stenosis. The right heart is slightly enlarged. The condition appears to be progressive. No evidence of infarction elsewhere. On January 19th the left eye had recovered enough sight to distinguish between light and dark. The œdema had practically disappeared, the retinal arteries were rather small, and the optic disc was atrophic.

Two Cases of Infantilism.—Dr. KENNETH KELLIE.—CASE 1: A girl, aged 4 years; weight, 17 lb. 2 oz.; height, 29½ in.; circumference of abdomen at level of umbilicus, 19 in. The parents were healthy, as were two other children in the family. One child had died of wasting (?) and one had been born dead. The child had never been breast-fed, and for the past year had had "anything" to eat. She had measles a year ago. She could not walk, but could stand, and talked and recognised people. On admission to the Belgrave Hospital last August the child weighed 10 lb. 13 oz.; the abdomen was large, 16½ in., and the veins on the surface were very conspicuous. The limbs were extremely wasted. A suspicion of tuberculous peritonitis was entertained, but there was no reaction either to the injection of tuberculin or to von Pirquet's test. The temperature has been usually normal. The stools have been always large and greasy, suggesting that the pancreas was at fault. CASE 2: A boy, aged 3¼ years; weight 16 lb.; height 28 in.; circumference of head 16½ in. The patient was a twin, the other having died a year ago. Three other children are healthy, and there was no history of miscarriages. The child could stand when held, but could not walk. He recognised things and played, but could only speak a few words. He had twelve teeth. A localised systolic murmur was audible over the fourth left interspace. The motions were very frequent and more or less foul and slimy.

The PRESIDENT, Dr. PRITCHARD, Dr. CARR, Dr. PORTER PARKINSON, Dr. J. D. ROLLESTON and Dr. LANGMEAD discussed the cases.

Persistent Jaundice.—Dr. KENNETH KELLIE.—The patient was a male infant, aged 5 months, who had been breast-fed entirely, but irregularly. There was one other child, aged 11 years, in the family, and the mother had had no miscarriages. The child had had no rash, but was said to have had a yellow discharge from the nose. Jaundice had been noticed since the fourth day after birth, but had varied slightly in intensity. The motions were colourless and very frequent. The liver could be felt three finger-breadths below the costal margin. The weight had increased 10 oz. during the last month. The diagnosis lay between inherited syphilis and congenital obliteration of the bile-ducts.

Dr. PARKES WEBER thought that the case was typical of obliteration of the bile-ducts.

A Paper on "Splenomegaly with Recurrent Jaundice ending in Hepatic Cirrhosis and Ascites, with Remarks on the Splenomegaly of Inherited Syphilis in Children," was read by Dr. PARKES WEBER (*vide* p. 97), and discussed by Dr. SUTHERLAND and Dr. PORTER PARKINSON.

A Paper on "Ulcerative Stomatitis in Children" was read by Mr. S. F. ROSE, who laid stress on the typical distribution of the lesion on one side of the mouth and the efficacy of potassium chlorate as a means of treatment. The disease occurred for the most part in ill-nourished and neglected children, and was frequently started by one or more loose or septic teeth.

Mr. STEPHENSON, Dr. PORTER PARKINSON and Dr. PARKES WEBER discussed the paper.

ROYAL SOCIETY OF MEDICINE.

CLINICAL SECTION.

Friday, January 13th, 1911.

Familial Pigmentary Dermo-fibromatosis.—Drs. J. D. ROLLESTON and N. S. MACNAUGHTAN showed three cases of incomplete von Recklinghausen's disease. The father, aged 47 years, had a generalised eruption of molluscous tumours; the skin of the abdomen and inner side of the thighs showed a yellow ground-work of pigmentation with punctiform pigmented spots and *café-au-lait* patches. The eldest daughter, aged 13 years, showed punctiform pigment-spots, *café-au-lait* patches, and numerous slightly raised blue spots, *i. e.* young molluscous tumours. There was a nævoid growth on the upper lip which the subsequent operation proved to be a plexiform neuroma. The youngest daughter, aged 5 years, had no molluscum, but numerous punctiform spots and *café-au-lait* patches on the neck and trunk. Since an attack of diphtheria in November, 1910, the molluscum of the elder girl and the pigment-patches of the younger girl had increased in number and size. Microscopical examination of one of the father's nodules and of the eldest daughter's blue spots showed the presence of fibrous tissue, but no nerve-fibres. The two other children, a boy aged 14 years and a boy aged 10 years, had a slight yellowish tinge of skin, but no molluscum nor pigmentation.

ROYAL SOCIETY OF MEDICINE.

NEUROLOGICAL SECTION.

Thursday, January the 19th, 1911.

The President, Dr. J. A. ORMEROD, in the Chair.

Progressive Spinal Muscular Atrophy in Infants and Young Children.—Dr. FREDERICK E. BATTEN read a paper dealing with the widespread progressive muscular atrophy of infants and young children due to a spinal lesion. The paper was based on the clinical and pathological examination of eight cases. These were divided into three groups: (1) A type of case in which progressive muscular weakness occurs during the

first week or months of life, gradually progresses, and terminates in death after a variable period of weeks, months, or years. Sometimes more than one member of the family might be affected. The pathological change found in these cases was a degeneration of the lower motor neuron, the character of the changes depending on the time after the onset of the disease at which death took place. This type corresponded to the cases recorded by Werdnig and Hoffmann. (2) A type of case in which progressive muscular weakness and atrophy begin somewhat later in life, after the child has already walked, and slowly progress till death occurs from respiratory failure or pneumonia. The pathological change found in such a case resembled that found in a "toxic neuritis." (3) A type of case in which progressive muscular weakness and atrophy begin in later life, after the child has already walked, slowly progress, and are attended by a widespread "myelitis" of the spinal cord. Six of the recorded cases are assigned to the first group, one to the second, and one to the third. The literature was then considered. Ten cases belonging to the first group are at present on record with a pathological examination. Two recorded by Werdnig, three by Hoffmann, two by v. Ritter, one by Bruce and Thomson, one by Beevor, and one by Armand-Delille and Boudet. Of recorded cases assigned to the Werdnig-Hoffmann group without autopsy, the writer is unwilling to accept those of Senator, Bruns, and Lange. The great difficulty in the diagnosis of these cases from cases of primary myopathy, and especially the type known as "myatonia congenita," is recognised. It is pointed out that in spinal muscular atrophy the paralysis is more marked, and the hypotonia is less marked than in myatonia congenita.

AUTHOR'S ABSTRACT.

THE HARVEIAN SOCIETY.

At a meeting held on January the 26th at the Paddington Green Children's Hospital, Mr. ERNEST LANE, the President, being in the chair, there was an exhibition of cases.

Dr. LEONARD GUTHRIE showed: (1) A girl, aged 7 years, suffering from an exacerbation of the symptoms of chronic hydrocephalus which had originated two years previously following measles. (2) A case of hydrocephalus with pseudo-glioma following posterior basic meningitis. (3) Congenital absence of the lower half of the pectoralis major.

Dr. G. A. SUTHERLAND: (1) A case of congenital cerebellar diplegia. (2) A case of pulmonary fibrosis in a child aged 8 years, originating in an attack of pneumonia and measles at one year.

Dr. F. S. LANGMEAD: (1) Urticaria pigmentosa following measles in a child aged 12 years. (2) Myositis fibrosa with scleroderma in an infant aged 12 months. (3) An infant with congenital heart disease.

Dr. REGINALD MILLER: (1) Raynaud's disease in a girl aged 10 years. (2) Acute polio-encephalo-myelitis, appearing at the ninth week of life and involving the left facial nucleus, the right shoulder muscles and the oblique muscles of the right side of the abdominal wall. The child was the second delivered of twins.

Mr. ARTHUR EDMUNDS: (1) Hypospadias after operation. (2) Cyst of the humerus after operation.

Dr. H. de G. TURTLE: Pyloric obstruction in an infant showing gastric peristalsis.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.

*December the 16th, 1910.***Massive Abdominal Tuberculosis, under Tuberculin Treatment.**—

Dr. E. F. TREVELYAN.—Boy, aged 7 years, who was in Armley Consumptive Hospital from October, 1909, to April, 1910, during the whole of which time he was given tuberculin by the mouth. Recently he had received tuberculin injections. The large tuberculous masses present in the abdomen a year ago, when he was shown before the Society, had become much smaller. His health was now very satisfactory.

Anomalous Epilepsy.—Dr. E. F. TREVELYAN.—Girl, aged 14 years, with anomalous epileptic manifestations, in which she mounted up on to the table, etc. She was apparently unconscious during the attack, and in one of them the urine was passed involuntarily.

Destructive Habits in a Boy after a Head Injury (? Anomalous Epilepsy).—Dr. E. F. TREVELYAN.—Boy, aged 5 years. Eighteen months ago fall on the head, followed by vomiting. Since then destructive habits, *e g.* putting things into fire, apparently not always conscious of what he was doing (? anomalous epilepsy). Recent improvement.

Congenital Pyloric Stenosis.—Mr. B. G. A. MOYNIHAN.—Girl, aged 8 years. Quite well after birth up to the age of nine months, when she was weaned. Soon after this she began to vomit after food, and had vomited after every meal since then. When given milk in teaspoonful doses she retained several ounces, but within a few minutes of the completion of a meal milk began to regurgitate; solid food had never been retained. On examination, a distended and visibly contracting stomach was seen. Operation, October the 14th, 1910: A thickened and hypertrophied pyloric antrum and pylorus was found. The stomach was both dilated and hypertrophied. Posterior gastro-enterostomy; vomiting had not occurred since the operation.

(?) Congenital Absence of Circular Fibres of the Iris in a Child, aged 6 years.—Mr. MICHAEL TEALE.—Slight double ptosis. No reaction of pupils to light. Reaction to atropine and eserine doubtful. Nystagmus since birth. Refraction normal. Vision probably about Jaeger 10. Severe headache, without vomiting, every month or two. No evidence of congenital syphilis in patient or in family history. Fundi normal.

Infantile Hemiplegia, with Residual Facial Palsy.—Dr. W. H. MAXWELL TELLING.—Girl, aged 2 years. On October the 1st sudden attack of partial paralysis, left side, without unconsciousness. This lasted for a week, then the paresis of the arm and leg disappeared completely at the end of a fortnight, leaving paralysis of the left side of the face, which was still present, though improving slightly.

Infantile Paralysis, with Paralysis of Abdominal Muscles.—Dr. MAXWELL TELLING.—Girl, aged 8½ years. Paralysis in July. Onset

taken for rheumatism. Paralysis of abdominal muscles well seen when the child attempted to sit up. The left leg was also affected. There was some wasting of all the limbs. The child was improving under massage.

Arthritis of Unusual Type in a Child.—Dr. MAXWELL TELLING.—Girl, aged 6 years. Fourteen weeks ago stiffness in left knee; ten weeks ago left knee noticed to be swelling, but was not painful. Then swelling of left ankle, and subsequently of right knee and ankle, with a certain amount of pain in and about the joints. The knees and ankles, especially the former, had a somewhat doughy, swollen appearance; some thickening of the capsule. There was no pain. There was some subluxation of the knee-joint. *Comments:* The patient had a delicate, rheumatic aspect, but there had been no ordinary symptoms of rheumatism in the case or in the family, and the thickened appearance of the joints and comparative absence of pain were not characteristic of rheumatism. One joint explored; scarcely any fluid discovered. Bacteriological examination negative.

Philadelphia Pediatric Society.

Tuesday, January the 10th, 1911, CHARLES A. FIFE, M.D., President.

Diphtheria.—Dr. COURTLAND Y. WHITE gave an extensive *resumé* of the methods employed by the Laboratory of the Board of Health of the City of Philadelphia in the investigation of diphtheria.

Dr. A. A. CAIRNS read a statistical report upon diphtheria in Philadelphia during 1909 and 1910, from the office of the Bureau of Health. He said that 3878 cases were reported during 1909, and 3804 cases during 1910. Of these, 512, or 13·2 per cent., died in 1909, and 492, or 12·93 per cent., in 1910. In 1909, 2329 cases were removed to the Philadelphia Hospital for contagious diseases (60 per cent.); in 1910, 2235 (58·75 per cent.). Of these, 243 (10·43 per cent.) died in 1909, and 203 (9·08 per cent.) in 1910. After the removal of cases to the Philadelphia Hospital for contagious diseases, when no immunisation was done, 43 (1·85 per cent.) cases occurred secondarily in 1909; 87 (3·08 per cent.) secondary cases in 1910: 1320 cases were treated at home during 1909; 1368 during 1910. Where antitoxin was used in the treatment of cases at home, 172, or 13·03 per cent., died in 1909; 203, or 14·83 per cent., in 1910. In 1909, 77 secondary cases occurred among cases treated at home with antitoxin, but where no immunisation was done; in 1910, 60, or 4·38 per cent. In 1909, 229 cases were treated at home without antitoxin, 97, or 42·35 per cent., of whom died; in 1910, 201, 86, or 42·78 per cent., dying. Among these cases treated at home, without antitoxin or immunisation, 63 secondary cases, or 27·51 per cent., occurred in 1909; 45, or 22·38 per cent., in 1910. The days of death of cases which died when no antitoxin had been given were as follows: in 1909, 1 case on the first day of illness, 22 on the second, 27 on the third, 11 on the fourth; 7 on the fifth, 6 on the sixth, 7 on the seventh, 3 on the eighth, ninth, tenth, 2 on the eleventh, 1 on the twelfth, and four on the thirteenth day. During 1910, 7 died on the first day, 16 on the second, 21 on the third, 15 on the fourth, 5 on the fifth, 6 on the sixth, 2 on the seventh, eighth,

ninth, 4 on the tenth, 1 on the thirteenth, 3 on the fifteenth, and 1 on the nineteenth and thirty-second days. The following table shows the diphtheria statistics since 1888. The free dispensing of antitoxin began in 1896.

Year.	Cases reported.	Deaths.	Case death-rate.
1888	1170	623	53.25
1889	1455	727	49.97
1890	1820	943	51.81
1891	3251	1362	41.89
1892	5051	1707	33.79
1893	3471	1159	33.39
1894	3608	1396	38.69
1895	3351	1020	30.4
1896	3191	862	27.0
1897	5405	1231	22.7
1898	4415	898	22.6
1899	4161	849	20.4
1900	4995	898	20.0
1901	3578	525	14.6
1902	2444	436	17.7
1903	3043	521	17.1
1904	3456	542	15.6
1905	3238	452	13.9
1906	3707	546	14.7
1907	3840	509	13.25
1908	3863	498	12.89
1909	3876	512	13.89
1910	3804	492	12.93

Dr. THEODORE LE BOUTILLIER said that they had all enjoyed hearing of the methods employed by the Board of Health. He had gone down to the laboratory, and his visit soon made plain to him what excellent work was being done there. Every physician who took the trouble to visit the laboratory could not help being impressed with the thoroughness with which the work was done.

Dr. SAMUEL McC. HAMILL said that he regretted that the speakers had not thrown some light upon the handling of cases of nasal diphtheria. In his experience the bacteriological study of nasal diphtheria had been most unsatisfactory. In an epidemic occurring in the infant ward of St. Vincent's Home the cases were cultured, and only about one third proved positive. The remaining cases were cultured daily, and when positive, cases were removed from the ward. In one case which was clinically diphtheria, ten examinations were made before a positive result was obtained. There was no question about the virulence of the organisms, inasmuch as several cases of pharyngeal diphtheria occurred among nurses and attendants working in this ward. Dr. White's statement regarding the frequency with which the first culture in pharyngeal cases proved positive is entirely in accord with Dr. Hamill's experience. He recalled a case occurring a few years ago in which six cultures were made before positive findings were obtained. Thereafter, positive cultures resulted from each inoculation.

Dr. E. E. GRAHAM said that the physicians of Philadelphia always relied on the laboratory of the Board of Health, believing that accurate work was done there. He asked why the death-rate from diphtheria in the larger cities in the United States was greater than in many of the larger European

cities. Dr. Cairns had just told them that the death-rate in New York was 38, in Philadelphia 32, in Boston 22 per 100,000, while in Berlin it was 15 and in Paris only 6 per 100,000. He always thought that antitoxin was used as freely in the United States as it was in Europe. The death-rate from diphtheria at the Municipal Hospital during the past two years was, according to Dr. Cairns, 10.43 per cent. in 1909 and 9.8 per cent. in 1910. During the same periods the death-rate for cases treated at home with antitoxin was 13.3 per cent. and 14.83 per cent. This certainly spoke volumes for not only the early, but the repeated administration of antitoxin. The cases treated at the Municipal Hospital were the worst cases, and yet, under immediate and repeated doses of antitoxin, they showed a smaller mortality than the cases treated at home, though they were also given antitoxin. The mortality during 1909 and 1910 of patients treated at home without antitoxin was, according to Dr. Cairns, over 42 per cent. This mortality-rate was interesting for a number of reasons. First, there was no doubt that this was a much greater mortality-rate than actually existed, and this discrepancy could be explained only by the fact that many cases of diphtheria were so mild that the physician did not report them, the neglect to report them being due to carelessness, or the wish to protect the family from the inconvenience of having the house placarded. The case that was so dangerously ill that it might die must be reported, hence the unnatural death-rate of 42 per cent. Many of those cases that received no antitoxin and ended fatally lived so many days after the onset of the disease that antitoxin would almost surely have saved their lives. Some of the other statistics reported by Dr. Cairns were also interesting. Taking the years before 1896, the death-rate was always 25 per cent. or over. Since 1896, when antitoxin was used for the first time by the Board of Health, the mortality had been invariably 22 per cent. or lower, and since 1901 had averaged about 15 per cent. These figures, extending over a period of a number of years, should convince the most sceptical of the most positive curative influence that free antitoxin exerted.

Dr. ROBERT S. MCCOMBS said that cases of diphtheria could easily be spread among children waiting their turn in the various hospital dispensaries.

Dr. HARRY LOWENBURG spoke of a case in which he sent a culture in late Thursday night. The police failed to send it to the laboratory until Friday, too late for the day's examination. It was examined Saturday morning, and Dr. Lowenburg only received his post-card telling that it was positive on Monday morning. His report of the case, therefore, only reached the authorities on Tuesday. He objected to the possibility of such delays occurring. He had given antitoxin at once and the child was practically well when the case was reported. He also stated that he always expected and invariably encountered an antitoxin rash ten days after administering the antitoxin. He believed that the city authorities ought to provide antitoxin globulins free from serum in order to avoid rashes.

Dr. WHITE added that even the laboratory man might make mistakes. So many germs occurred in the nose which resembled diphtheria bacilli that mistakes must occur. Delays in bringing in cultures rarely happened. Dr. White hoped that the Department of Health would soon be able to get up concentrated antitoxin in syringe form, ready for anyone to administer. Antitoxin rashes had been very rare this winter. As the pseudo-diphtheria bacilli could not be distinguished from true diphtheria bacilli by culture alone the germ must be isolated, inoculated on special agar, and later into a guinea-pig.

Dr. CAIRNS said that his medical inspectors were ready to give antitoxin, immunise and urge the use of antitoxin in all cases. As delays occurred when the attending physician asked the medical inspector to give the antitoxin, Dr. Cairns advocated preparing the antitoxin in syringe form. The Board of Health would only give one injection of antitoxin, as Dr. Cairns would not allow the medical inspectors to give a second dose, since that would be treating the case and encouraging patients to remain at home, thus defeating the object for which the Philadelphia Hospital for Contagious Diseases was erected. When the medical inspector had given the first dose of antitoxin, the case remaining at home, there was ample time for the attending physician to prepare himself for administering further doses of antitoxin if the cases needed them. It was never necessary to await a positive culture before reporting clinical cases of diphtheria or giving antitoxin.

The PRESIDENT, Dr. FIFE, then read the Annual Address.

Société de Pédiatrie, Paris.

December the 20th, 1910 (Bulletin No. 9).

Dystrophies in connection with Lesions of the Suprarenal Capsules; Hirsuties and Progeria.—M. APERT read a communication on this subject arising out of M. Variot's case of progeria shown at a previous meeting. As the result of thirty-five autopsies he asserted the existence of a special syndrome dependent on changes in the cortical substance of the suprarenal capsules. This was entirely different from Addison's disease, which was due to changes in the medullary and nervous portions of the capsules or in the contiguous sympathetic ganglia. Two opposite sets of symptoms existed, one in connection with hyperplastic changes in the cortical substance (hyperepinephria), the other, the inverse, in connection with atrophic or sclerosing changes in the same cortical substance (hypoepinephria). In the former there were three chief elements: (1) excess of development of the hair; (2) of the adipose tissue; (3) disturbance of the genital functions. In the latter were observed scanty development of the hair, insufficiency of fat and of the body development. M. Variot's case came under this category. Of hyperepinephria there were five types: (a) Of the period of sexual activity, where there was arrest of menstruation, adiposity, and growth of hair on the skin. (b) Of the pre-puberty period, in which there was exaggerated bodily development, precocious signs of puberty, adiposity, hypertrichosis, and sometimes hypertrophy of the clitoris. (c) Of the period of sexual decline, in which there were uterine hæmorrhages and adiposity but no hypertrichosis. (d) Of the embryonic period, in which the lesion had commenced before birth and a condition of hermaphroditism resulted of a special type, *i. e.* internal female organs joined to external male organs. The child at birth had the appearance of a cryptorchid, with a well-formed penis, sometimes a slight degree of hypospadias, and an empty but undivided scrotum. Later on he developed on the masculine type and was considered to be a man, but the autopsies showed that in these cases there was a uterus,

two Fallopian tubes and broad ligaments; the cervix uteri opened into a vagina which was narrowed at its lower part, to be inserted at the level of the neck of the bladder into a well-developed prostate, and opened into the prostatic portion of the urethra at the level of the veru montanum by a fine orifice. The prostate and urethra were of a male type. The genital gland had usually the structure of the ovary; in one case only was it testicle. (e) Of the fœtal period, in which there was an abnormal sexual morphology, large clitoris, atrophic uterus and ovaries, premature hypertrichosis. Of hypopinephria the case shown by M. Variot and also Gilford's case were typical examples, and in such cases adrenalin, which was a product of the medullary part of the gland, was useless; what was wanted was the capsule itself given in the form of powder or total extract.

Congenital Elevation of the Scapula.—M. APERT showed a boy, aged 15 years, well developed, whose right scapula was lifted and tilted. (A woodcut appears in the 'Bulletin.') The condition was doubtless congenital, being too marked to be the consequence of faulty position.

Sublingual Syphiloma in a Girl, aged 6 years.—MM. COMBY and SCHREIBER.—The lesion of the tongue was of the nature of a lenticular glossitis with sclerosis.

Thomsen's Disease in a Girl, aged 10 years.—MM. BABONNEIX and LEMAIRE showed this case, which at first sight seemed a myopathy of abnormal type. The muscular pseudo-hypertrophy with characteristic localisation resembled that of Duchenne, but persistent contracture after cessation of effort and the electrical reactions showed that it was a typical case of Thomsen's disease. This disease was rare in children, and this child seemed the only one in the family attacked by it.

Clinical Study of Hypoalimentation in Nurslings.—M. PROSPER MERKLEN read an interesting paper on this subject, which was first brought into prominence by M. Variot. Its chief symptoms were—(a) crying, which began as soon as the child was taken from the breast; suction movements of the lips, sucking the fingers; (b) digestive disturbance, consisting of constipation, changes in the stools, and vomiting; (c) diminution in the quantity of urine; (d) bradyphagia; (e) wasting, etc. The ætiology showed the danger of prescribing feeds of a definite duration at definite intervals without at the same time insisting on weighing the child. When such infants were brought to a doctor it was because they did not thrive, because they cried and were restless and presented digestive disturbances.

The Rôle of the Streptococcus in the Ætiology of Acute Colitis.—M. Roux read a paper on this subject, in which he discussed the probability of the infection originating in the naso-pharynx. VINCENT DICKINSON.

Abstracts from Current Literature.

Medicine.

Repeated attacks of infectious diseases ('*Wien. klin. Woch.*,' 1909, p. 1596).—**J. Widowitz** has paid special attention to this question during the last thirteen years. Among 323 cases of scarlet fever he had found only two children who had a second attack. Among 1100 cases of measles observed since 1897, *i. e.* since the recognition of Koplik's spots, he had never seen a second attack. Among 363 cases of rubella only one case had a second attack. He did not meet with a single instance of a second attack among 524 cases of varicella and 395 of mumps. Among 558 cases of whooping-cough in children there was no instance of a second attack, but seven adults, aged from 35 to 81 years, who had had whooping-cough in childhood, were reinfectd by their children or grandchildren. No lasting immunity followed an attack of diphtheria, strepto- or staphylococcal infection such as follicular tonsillitis or rheumatism, erysipelas or influenza.

J. D. ROLLESTON.

Infectious diseases in negroes ('*Journ. Amer. Med. Assoc.*,' 1910, II, p. 1246).—**H. M. Folkes**.—Negroes are relatively more immune than whites to malaria, typhoid fever, intestinal diseases, tonsillitis, mumps, influenza, and yellow fever. With an experience of nearly twenty years Folkes cannot recall a case of scarlet fever, diphtheria, mumps or tonsillitis in pure-blooded negroes. On the other hand mulattoes, octaroons and quadroons are much more susceptible to the infectious diseases, especially syphilis and gonorrhœa. Negroes of all shades are extremely susceptible to tuberculosis and also to measles.

J. D. ROLLESTON.

Influence of acute disease on the milk secretion ('*Rev. d'hyg. et de méd. Inf.*,' 1910, p. 376).—**F. Marre** analysed the breast-milk of women suffering from scarlet fever, measles, and influenza, and found that the effect of acute fevers on the milk secretion was to diminish the water and lactose and increase the butter casein and salts. He agrees with Lemarquand (*v. BRITISH JOURNAL OF CHILDREN'S DISEASES*, 1907, p. 274) and Brelet (*ibid.*, 1910, p. 274) in recommending the mother in infections of short duration to continue lactation, supplemented if necessary by artificial feeding.

J. D. ROLLESTON.

Acute infectious disease as a cause of hemiplegia in children ('*Amer. Journ. Obstet. and Dis. of Women and Children*,' 1910, p. 566—*Chicago Ped. Soc.*).—**Mary Johnstone** records two cases: (1) A girl, aged 8 years, had a severe pneumococcal infection of the throat, lungs, and meninges, with crisis on the eighth day. Severe vomiting suddenly occurred, followed by convulsions and left hemiplegia. Five years later the child was quite well without any trace of paralysis. (2) A child, aged 7 years, had an attack of erysipelas. Forty years later the patient still showed the results of a right hemiplegia, and had epileptic attacks. No other cases of hemiplegia following erysipelas could be found in literature.

J. D. ROLLESTON.

The incubation period of measles ('*La Clin. Infant.*,' October, 1910, No. 19, p. 582).—**M. Sébilleau**, from his observations during a recent epidemic,

finds that while the incubation period is often characterised by the absence of any apparent symptoms, at times there may be noticed coated tongue, rarely vomiting, and colic followed by undigested stools. Other children have temporary catarrhal symptoms, which disappear only to reappear at the stage of invasion. Another symptom which the author found during the incubation stage was sudden enlargement of the glands of the neck.

VINCENT DICKINSON.

Prodromal icterus in measles (*Allg. Wien. med. Zeit.*, April 12, 1910, p. 163).—**Friedjung** relates in detail the history of a child, aged 7 years. Infection probably occurred at the end of January. Several days later there were vomiting, cough, abdominal pain, constipation, and anorexia. Seven days later (February 7) conjunctivitis, pharyngitis, slight temperature and jaundice; 11th, typical rash of measles. No Koplik spots throughout. Simple catarrhal jaundice must be excluded. The writer thinks that the first symptoms of measles may sometimes appear in the intestinal tract, and, as in this case, lead to jaundice.

M. D. EDER.

Spasm of the glottis in the broncho-pneumonia of measles (*Gaz. des Hôp.*, 1910, p. 1479).—**Variot** and **Pironneau**.—A girl, aged 4½ years, was admitted to hospital in the prodromal stage of measles on June 23; 26th, measles rash; 28th, broncho-pneumonia; 30th, paroxysmal cough, loss of voice, supra- and infra-sternal recession. Fauces clean. Throat cultures negative. The symptoms were relieved by intubation after an injection of ½ cgm. of morphia had produced no effect, but death took place on July 4 owing to the advance of the broncho-pneumonia, without any more attacks of glottic spasm. At the necropsy the naso-pharynx was found to be full of pus, but the larynx was quite normal, and contained no diphtheria bacilli. The trachea and large bronchi were full of pus, and there was broncho-pneumonia of both lungs, especially at the bases. The other organs were normal with the exception of the congested liver. The spasm of the glottis was probably due to reflex irritation associated with the pulmonary lesions, a syndrome which Variot described in 1898 in his work on diphtheria.

J. D. ROLLESTON.

Nasal diphtheria in measles (*Thèse de Bordeaux*, 1909).—**E. Dusillol**.—This thesis contains the histories of forty cases, twenty of which are from original observations made in Moussous' service at the Hôpital des Enfants at Bordeaux. During 1909 nasal diphtheria in measles was unusually frequent at this hospital. The nasal localisation of diphtheria is favoured by—(1) the nasal catarrh, which is often intense in measles; (2) all previous local sources of irritation. The nasal diphtheria may be an isolated phenomenon, or secondary to some other diphtheritic manifestation. Clinically it may follow either a mild or a malignant course. It is liable to escape notice at first from being mistaken for the ordinary nasal discharge of measles. If diagnosed early and promptly treated, the mild forms as a rule tend to recovery and rarely becomes chronic. The malignant form has always a grave prognosis, especially in young children.

J. D. ROLLESTON.

Diphtheria in a new-born child (*Deut. med. Wochens.*, 1910, p. 1813).—**G. Röthler**.—A male child when five days old had a discharge from the right nostril, and in the course of the next six days a serous discharge

from both eyes and from the left nostril. On the twelfth day attacks of dyspnoea developed, and membrane was seen on the palate and pharynx. Tracheotomy was followed by relief, but the next day the child had more attacks of dyspnoea. The stools contained blood, and there was a rapid loss of weight. Membrane finally appeared in the lower conjunctival fornix of each eye. Klebs-Loeffler bacilli were found in the eyes, nose, and trachea. Death occurred on the fourteenth day of life. Necropsy: Diphtheria of pharynx and oesophagus. No membrane in larynx and trachea. Catarrhal gastritis and enteritis with hæmorrhages in gastric and intestinal mucosa. A few days after the child's death the nurse developed faucial diphtheria. Examination of the mother's vaginal secretion showed only the usual saprophytes, but diphtheria bacilli were found in the urethra. The mother had suffered from leucorrhœa for four months before delivery, and had probably infected the child during birth.

J. D. ROLLESTON.

Abdominal diphtheria (*Journ of Amer. Med. Assoc.*, January 21, 1911, p. 199).—**Everall** reports the case of a boy, aged 6 years, who was the subject of naso-pharyngeal diphtheria. On the seventeenth day he was apparently convalescent; pulse 96, temperature 99.2° F. On that day he vomited twice, but retained one ounce of castor oil. The vomiting recurred and became almost constant; pulse 158–170, temperature 103° to 104.5° F. The abdomen was distended and tender, especially below the umbilicus. An enema brought away flatus only. Alarming symptoms of respiratory and circulatory failure followed. Two doses of antitoxin were given, causing a rapid improvement in the symptoms. Two days later, following a dose of calomel and an enema, the patient passed a large amount of foul and bloody fæces, containing a necrotic membrane three inches long, and having the appearance of an intestinal cast. The boy made a slow recovery, developing an extensive paralysis and persistent high pulse-rate with obstinate constipation.

T. R. WHIPHAM.

Report of an epidemic of diphtheria in a convalescent home for children (*Cleveland Med. Journ.*, 1910, p. 864).—**R. G. Perkins** and **A. F. Furrer** investigated an epidemic of diphtheria in a convalescent home containing twenty-eight children and twelve adults. In six months eighteen cases occurred, consisting of three adults and fifteen children, a percentage of 44 of the population. Three cases occurred in December and January. Prophylactic doses of antitoxin were administered to all the children. Six weeks later two more cases developed, and then, after an interval of four weeks, another case. Eight "carrier" cases were then discovered and suspicious organisms found in throats of a dog and cat. Antitoxin was administered to all contacts, but in some cases diphtheria bacilli persisted for months. The organism found in dogs produced no toxin in culture. No symptoms due to anaphylaxis are recorded. There were no fatal cases. The authors insist on the importance of prophylactic antitoxin.

CHRISTOPHER ROLLESTON.

Diphtheria at the Hôpital Trousseau, Paris (*Thèses de Paris*, 1909–10, No. 464).—**E. L. Gautier**.—During 1909, 426 children were admitted to Netter's diphtheria block at this hospital; 386 were found to have diphtheria, the rest were suffering from other diseases. Seventy-six died—a mortality of 19.68 per cent.; after subtracting eighteen who died within

twenty-four hours of admission this figure is reduced to 15·76 per cent. This high mortality, which considerably exceeds that recorded at this hospital in 1905 (*v. BRITISH JOURNAL OF CHILDREN'S DISEASES*, 1907, *p.* 462) is attributed to the frequency of severe angina, which was met with in 31·53 per cent. of the faucial cases. Diphtheria morbidity was relatively low in the first year of life, being represented by only 2·84 per cent. of the total admissions, rising rapidly to 14·76 per cent. in the second year, and reaching the maximum, 15·28, in the third. During the next three years it gradually declines and then rapidly falls. The mortality is very high in the first years of life—63·63 per cent. in the first, 40·35 in the second, and 25·92 in the third; after the eleventh year it was *nil*. Albuminuria was noted in 16·83 per cent., and paralysis in 5·95 per cent., with a mortality of 17·39 per cent. The percentage of serum rashes in 165 cases treated with prophylactic doses of calcium chloride was 4·72 as compared with 24·06 in 170 cases not so treated. As in previous years, favourable results followed the employment of collargol and adrenalin.

J. D. ROLLESTON.

Paralysis following relapses and second attacks of diphtheria (*Journ. Nerv. and Ment. Dis.*, xxxvii, 1910, *p.* 164).—J. D. Rolleston.—Among 1600 consecutive cases of diphtheria twenty-seven, or 1·6 per cent., had relapses which were separated from the initial angina by intervals varying from three to fourteen weeks. Two of the twenty-seven had palatal and ocular palsies after the primary attack, but none showed any paralysis after the relapse. Another thirty-six cases had second attacks of diphtheria between which and the first attack were periods ranging from three months to fourteen years. One case had paralysis after the first attack and another three after their second attack. In only one patient were both attacks followed by paralysis. The first illness was one of mild diphtheria, for which no antitoxin was given and only local treatment employed. Generalised paralysis developed in convalescence, necessitating detention in hospital for four months. Six years later the patient was admitted with a more severe angina than on the first occasion on the third day of disease, and received 12,000 units of antitoxin subcutaneously. Ciliary palsy developed on the thirty-second day, and lasted till the forty-fifth. No other paralysis occurred, and the knee- and ankle-jerks remained active throughout the patient's forty-seven days' stay in hospital. Only five other cases of second attacks of diphtheritic paralysis are mentioned in literature, but in only one, described by Coulter, was the paralysis generalised on both occasions. The absence of paralysis after relapses and their occasional occurrence after second attacks are attributed to the invariably mild character of the former due to the immunity conferred by the recent attack and the initial dose of antitoxin (*cf. BRITISH JOURNAL OF CHILDREN'S DISEASES*, iv, 1907, *p.* 332).

AUTHOR'S ABSTRACT.

Babinski's sign in diphtheria (*Rev. of Neurol. and Psych.*, viii, 1910, *p.* 404).—J. D. Rolleston, in the course of four years, investigated the plantar reflex in 877 cases of diphtheria, and thus summarises his conclusions: (1) Babinski's sign was found in a considerable percentage (19·6 per cent.) of all cases of diphtheria, the character of the response being rapid, deliberate, or intermediate in character. (2) The extensor response in diphtheria is not confined to infants, but may be obtained, though with decreasing frequency and duration, especially after the eighth year until adult life. (3) It is essentially a phenomenon of the acute stage, in most

cases being replaced by flexion in convalescence. Transition stages often exist in which various forms of response may be obtained. (4) Babinski's sign is not pathognomonic of diphtheria among the acute infections, since it occurs in typhoid fever, scarlatina, lobar pneumonia, and probably other acute diseases; but its greater frequency in diphtheria than in non-diphtheritic angina accords the sign a certain diagnostic value. (5) It is more frequent and persistent in the severe than in the mild forms of diphtheria, as is shown by the character of the angina, the higher mortality and greater frequency of paralysis and albuminuria among the cases in which it occurs. Its presence has, therefore, a certain prognostic value. (6) It is not associated with any special condition of the tendon-jerks, and is never accompanied by ankle clonus. (7) It is probably due to a transitory perturbation of the pyramidal system by the circulating toxins, comparable to the slight degree of meningeal reaction which is a frequent occurrence in acute infections.

AUTHOR'S ABSTRACT.

Dangers of decoction of poppy-heads in infants (*L'Echo Méd. du Nord.*, July, 1910). —**Deléarde** and **Boon** relate that it is very customary among the lower classes in France to give to infants who are suffering from indigestion due to improper feeding a decoction of poppy-heads to soothe the pain, frequently with a fatal result. The amount of morphine contained in the different varieties of poppy varies from 15 to 21 per cent. of the opium obtained from them, but none of the varieties are innocuous. The authors relate three cases of infants who died from this treatment with analyses of the viscera, most of which contained appreciable quantities of morphia. They recommend that the promiscuous sale of these remedies by grocers, etc., should be stopped by law. J. PORTER PARKINSON.

Alcoholism and childhood (*Brit. Journ. of Inebriety*, 1910, p. 67). —**G. Basil Price** quotes many statistics of interest in connection with this subject. In one London school of 300 children under the age of 8 years, 11·8 per cent. were said to drink alcohol daily (Makereth). The death-rate in children of under two years old born of female inebriates is two and a half times as great as in the offspring of sober mothers (Sullivan). Demme compared the children of ten drunkards and of ten sober people. Of the former there were fifty-seven, of whom nine were entirely normal; of the latter there were sixty-one, of whom fifty were entirely normal. The proportion of "dullards" in the children of drinking parents is found to be 53 per cent., in those of abstaining parents 10 per cent. (MacNicholl). Only 10 per cent. of women whose fathers were drunkards were able to suckle their children, while 91·5 per cent. of those whose fathers were not habitual consumers of alcohol were able to nurse their offspring. Dr. Templeman is quoted as stating that of 461 cases of overlying, 47 per cent. occurred between Saturday night and Sunday morning. The author suggests the term "alcoholic abiotrophy" to such cases of wasting developing in infants, apparently healthy at birth, as he regards as due to lack of vitality from maternal alcoholism.

REGINALD MILLER.

Lead poisoning in a child (*Berlin. klin. Wochens.*, 1910, p. 1820). —**Hirsch**.—A girl, aged 2 years, was brought to hospital for vomiting of six weeks' duration. The abdomen was retracted. On inquiry it was learnt that the child had been in the habit of gnawing at its recently painted

bedstead. The pulse was not of high tension, and there was no blue line on the gums. Death took place five days after admission. Lead was found in the paint of the bedstead and in the child's urine and fæces. The necropsy showed fatty degeneration of the myocardium, liver and renal epithelium, and pneumonia.

J. D. ROLLESTON.

The plantar reflex in infancy and childhood (*'Arch. of Pediat.,'* August, 1910, p. 586).—**E. C. Fleischner** compares the normal plantar reflex in adults and in infants and the Babinski phenomenon, as shown in the following table:

	Adult.	Infantile.	Babinski.
Movement	Quick	Deliberate	Quick.
Muscles first to contract with a minimal stimulation	Tensor vaginæ femoris	Extensor proprius hallucis	Extensor of toes.
Position of toes	Flexion, adduction	Extension, abduction	Extension, abduction.
Obtained more easily by stimulating	Inner part of the sole	Outer part of the sole	—
Movement of ankle	Dorsiflexion, inversion; both conspicuous	Dorsiflexion, inversion; both conspicuous	Dorsiflexion, eversion; both conspicuous.

The author concludes: (1) The most valuable result can be obtained on single stimulation. Repeated stimuli disturb the child and render the result unsatisfactory. (2) Babies should have warm feet for a satisfactory result. (3) In eliciting the Babinski phenomenon the lightest stimulation should be employed and on the outer side of the plantar surface. (4) Of children who could not stand, 85 per cent. under one year of age and only 50 per cent. over this age showed the infantile reflex. (5) Of children who could stand, but not walk, 75 per cent. showed the mixed infantile and adult phenomenon, 20 per cent. the infantile phenomenon, and in 5 per cent. the result was variable. Of children who could walk, 55 per cent. showed the adult reflex, 40 per cent. the mixed reflex, and in 5 per cent. the infantile reflex. (6) The Babinski phenomenon is practically of no value in infancy and childhood when the children cannot walk, and is then only of value if one is cognisant of the reflex present before the diseased process began.

JAMES E. H. SAWYER (Birmingham).

Surgery.

Results in congenital dislocation of the hip (*'Med. Record,'* 1910, 1, p. 1069).—**E. H. Ochsner** gives the age-limits at which it is safe to perform reduction of congenital dislocation of the hip by the bloodless method as six years in single and eight in bilateral cases. He does not think the open operation justifiable in cases of double dislocation. He had obtained 71 per cent. of successes in cases he had dealt with that were within the mentioned age-limits. He applied his plaster cases and kept them on for a year with only one renewal.

DUNCAN C. L. FITZWILLIAMS.

Congenital dislocation of the shoulder-joint (*'Journ. of Amer. Med. Assoc.,'* December 24, 1910, p. 2213).—**Huntley** reports the case of a young

man, who has always been able by raising the arms above the head to produce a complete dislocation of the head of the humerus in a downward and outward direction without any discomfort. A skiagram shows the great flexibility of the bony protection to the shoulder-joint.

T. R. WHIPHAM.

Congenital absence of the tibia (*Amer. Journ. of Orthop. Surg.*, November, 1910. *Abstr. Journ. A.M.A.*).—**Meyers** operated upon a boy in 1905 for congenital absence of the tibia. The head of the fibula was transplanted, and an arthrodesis was performed at the ankle-joint with an excellent result. The shortening is now 2 in., of which three fourths is in the femur. The affected calf is $\frac{3}{4}$ in. smaller than the other, and the foot is flexed at 135°. There is no hyperextension and no rotation possible at the knee. The boy can extend the leg to 165° strongly and flex it to 90°. Ankylosis at the ankle is firm.

T. R. WHIPHAM.

The Nebraska Orthopædic Hospital (*Western Med. Rev.*, 1910, p. 625).—**Lord.**—The author has prepared a statistical table of the 406 cases treated at the hospital and reserves his comments for the points of special interest. The treatment adopted in a case of diplegia accompanied by sexual depravity is certainly startling. However desirable, the fact of removing the ovaries and tubes, clitoris and vaginal mucosa of this patient without consulting her "ignorant parents" would lead to a great outcry in this country. Three of the eleven cases of Pott's disease reported were treated by forcible extension under an anæsthetic to overcome the kyphosis, with good results. The feature of the treatment of tuberculous hip is the length of time, two and a half years being the average period the child is kept in plaster from the ninth rib to the foot. Numerous photographs of successful cases are shown. The length of time over which the patients are treated together with the establishment of an industrial training school will do much to overcome the difficulties that orthopædic surgeons have to contend with.

RUPERT FARRANT.

Convulsions after orthopædic operations (*Deutsch. med. Wochens.*, November 17, 1910. *Abst. Journ. A.M.A.*).—**Codivilla** describes several cases in which convulsions were a severe complication of orthopædic operations. He thinks that they are the result of traction on the nerve-terminals by the extension applied to complete the operative correction of the deformity in question. The excessive traction on the soft parts and nerves of the hip affects by reflex action the central nervous system, resulting in a condition which leads to the outbreak of epileptic convulsions. Neri has confirmed this by experiments on animals, especially by continuous traction on the sciatic nerve. Children and adults with a predisposition to nervous disturbances are particularly liable to be affected. The main point in treatment of the attack is to relieve the traction on the soft parts. The author advises a preliminary course of bromide for epileptics and patients inclined to be nervous and the application of extension cautiously and gradually. The convulsions did not develop until several days after the operation, and were preceded by headache, restlessness at night, sleeplessness, and occasional painful spasms in the limbs with a tendency to delirium, especially at night. The pulse was slow and tense, the pupils were dilated and sometimes unequal, while the reaction to light was sluggish. There may be also abdominal pain and difficulty in micturition. This prodromal stage may last for hours or

days, and may subside without the development of actual convulsions. The convulsions are slight at first as a rule, but gradually become worse, until the spasms are practically continuous. During the interval the patient may regain consciousness, but generally there is more or less apathy or stupor. The convulsions resemble an epileptic seizure in every particular. Schanz attributes them to fat embolism, but there are numerous arguments against this view.

T. R. WHIPHAM.

A case of hip-joint disease (*Med. Record*, 1910, 1, p. 707).—**Professor Wyeth**, of New York, reports the following excellent recovery after hip-joint disease. A boy, aged 6 years, developed symptoms of tuberculosis of the left hip, and was treated with extension and a long straight splint for a period of three years, at the end of which time the use of the splint was discontinued. At the age of fourteen the boy won the second prize in a junior Marathon race over a course of five miles, in which there were twenty starters.

DUNCAN C. L. FITZWILLIAMS.

New technique for cleft-palate operations (*Zentralb. f. Chir.*, November 26, 1910. *Abstr. Journ. A.M.A.*).—**Helbing** and **Lobmayer** state that by separating the upper jaw from the malar bone it slips forward and closes the cleft. In a case described a small chisel was introduced into the mouth, and by it the bone was cut through transversely above the second premolar tooth, the chisel being driven in until its edge could be felt from without at the margin of the orbit. After removal of the chisel strong pressure on the jaw pushed it inwards until the cleft was nearly closed, the jaw being held in position by three wires passed through holes bored according to Brophy's technique. Four days later the operation was completed in the usual way, except that horse-hairs were used instead of silk as sutures. Since using horse-hairs the authors have had no necrosis of the edges, it being impossible to draw the hairs too tight. By the end of four weeks the divided jaw was firmly united.

T. R. WHIPHAM.

The surgical treatment of infantile spinal paralysis (*Journ. of Amer. Med. Assoc.*, September 17, 1910, p. 1014).—**Silver** deals with this subject in a paper which is too long and too detailed for abstraction. Readers are referred to the original monograph.

T. R. WHIPHAM.

Spontaneous fracture of the femur of syphilitic origin (*La Syphilis obscure*, 1911, p. 107).—**J. Audrain**.—Audrain, of Caen, relates an instructive case of spontaneous fracture of the femur in a girl, aged 12 years, the daughter of agricultural labourers. The child had complained of pains in the right thigh for a week. The pain occurred in the upright position and whilst walking, but was not present when lying down or sitting. The femur was enlarged about the middle third of its length. No febrile or other symptoms. No diagnosis had been made, when the child, whilst turning in bed, experienced a sudden sharp pain: the femur was found to be fractured. The limb was put up in plaster and the child conveyed to the Hôtel Dieu at Caen, where she was carefully examined from the point of view of syphilis. The other members of the family were all carefully examined also—father, mother, a sister, and two brothers. No signs of syphilis could be made out. Notwithstanding the negative result of these examinations, mercury was exhibited before proceeding to other measures. The child, however, got well. The fractured bone healed regularly and without shortening. The mercurial

treatment was kept up, and the child has since then developed physically in a remarkable manner. As regards the history of the patient herself, the parents could remember nothing in the way of eruptions, enlarged glands, bad throats, etc. One point only came out in cross-examination: the patient began to walk and talk late. The same thing applied to the brothers and sisters as to walking. The child's teeth were good, regular; no notching and so forth. Ophthalmologically (two examinations), no stigmata of Antonelli were found. The bones exhibited neither dystrophy nor abnormality of any kind. The general appearance of the child was good. As to mother, no miscarriages, no hydramnios in her pregnancies. Father healthy. The two brothers and the sister were normal, except for some sluggishness. It was impossible to fasten on any objective sign of syphilis, yet the taint was present. Such instances are uncommon, it is true, but this case emphasises the necessity of always bearing syphilis in mind, and of not rejecting it as the ætiological factor notwithstanding negative result of careful examination.

GEORGE PERNET.

Pathology.

Congenital obliteration of the bile-ducts (*Arch. of Pediat.*, xxvii, 1910, p. 431).—**Elizabeth Peck**, in connection with an autopsy on a case of the above, discusses the causation of the condition. Thomson (*Congenital Obliteration of the Bile-ducts*, Edinburgh, 1892) concludes that probably a congenital malformation is the causative factor, narrowing of the ducts beginning early in intra-uterine life, and later causing cirrhosis, by interfering with the outflow of bile, or causing some catarrhal condition of the small hepatic ducts, which by inflammatory process causes adhesion and obliteration of their lumen. Lavenson also holds that the obliteration of the ducts is primary and the cirrhosis the result of biliary stasis, basing his opinion on the fact that the earliest fetal evidence of the liver is a solid cord that grows out of the gut-tract; this becomes detached from the gut, and buddings form respectively the hepatic ducts and the ductus choledochus, which are at first solid cords and normally obtain a lumen later. On the other hand, Rolleston (*Diseases of the Liver, Gall-bladder and Bile-ducts*, London, Saunders & Co.) believes that the primary lesion is cirrhosis started by poison conveyed from the mother to the liver of the fœtus; a descending cholangitis follows, and to this is due the jaundice and the obliteration of the larger ducts. Peck thinks there may be more than one explanation of the origin of these cases. In her case, as only the cystic duct was wholly occluded (though the other ducts, found to be pervious post-mortem, may not have been freely open during life), and as bile must have reached the duodenum during the entire illness, death occurring early with marked cirrhosis of liver, spleen, and kidneys, she inclines to the theory that the condition was of an infective or irritative origin.

J. E. BULLOCK.

Otology, Rhinology, and Laryngology.

Ear disease and its prevention (*New York Med. Journ.*, 1910, II, p. 1270).—**Bardes** protests that "so much can be done at the outset of an acute ear affection to prevent its attendant dangers and inconveniences that it is astonishing that the profession as a whole does not more generally adopt and more strongly urge preventive measures," words with which all readers of the BRITISH JOURNAL OF CHILDREN'S DISEASES must be in full and

heartly agreement. The paper is an excellent one, and enumerates most of what has been said as to the care of the ear in children.

MACLEOD YEARSLEY.

Aural tuberculosis in children (*Journ. of Laryngol.*, October, 1910, p. 506).—**Milligan** thus summarises his paper, read in the Otological Section of the London meeting of the British Medical Association: (1) Aural tuberculosis in childhood is of far more frequent occurrence than is usually supposed. (2) An early and accurate diagnosis of the underlying factor in the production of suppurative otitis media is essential from a therapeutic, prognostic, and sociological point of view. (3) Children suffering from tuberculous otitis should be segregated, and every endeavour made to raise their powers of resistance. (4) Local authorities should be apprised of the great danger to life of an impure milk supply, and means should be adopted to secure efficient supervision of dairy farms and creameries. (5) Notification of tuberculosis in whatever form it occurs should be made compulsory.

MACLEOD YEARSLEY.

Some observations on the middle ear (*Amer. Journ. Obstet. and Diseases of Women and Children*, 1910, p. 544).—**C. G. Crane** makes a strong appeal to the general practitioner to increase his knowledge of ear disease in children and his activity in its prophylaxis, and quotes useful statistics.

MACLEOD YEARSLEY.

Mastoiditis in infants (*Dom. Med. Monthly and Ontario Medical Journal*, September, 1910, p. 81).—**G. H. Mathewson** contends that there are air-cells in the infantile mastoid, and says that "in some of the cases the spaces were as large as in some adult mastoid bones." He cites fourteen cases, varying in age from 4 to 20 months. His paper is not convincing, and he appears to have mistaken the limitrophic cells of Broca for mastoid cells.

MACLEOD YEARSLEY.

Disease of Deiter's nucleus (*Ally. Wien. med. Zeit.*, February 22, 1910, p. 86).—**Bárány** showed a case in a boy, probably of the left nucleus. The patient held his head to one side because in any other position he had vertigo and nystagmus. The ear was normal, the hearing very good. There was probably tuberculosis, for this vertigo was associated with tuberculosis in the upper and lower limbs.

M. D. EDER.

Recent progress in the study of ozæna.—Three papers of interest upon atrophic rhinitis ("ozæna") have appeared recently. From the study of many children with special reference to the first symptoms of this disease, **Baumgarten** (*Archiv für Laryngol.*, Bd. xxii, Heft 3, p. 492) describes an early stage in which the lower turbinate becomes temporarily engorged, generally unilaterally, with a tendency to form scabs. This engorgement gradually diminishes in frequency and extent until the lower turbinates remain shrunken and the stage of crust formation begins. The first symptoms he discovered by careful search in younger and younger children until he concluded that the disease may be present at birth, but symptoms rarely appear before four years of age. He does not believe that it can be contagious on account of the very large number of cases in which, with every opportunity for infection, the child remains well. It appears sometimes to be inherited, especially from mother to daughter. Females are more liable to it than

males. Mothers with ozæna sometimes have two or three daughters with the disease, while sons escape. He has found no connection between ozæna and syphilis. For treatment he has obtained good results in the earlier stages by application to the mucous membrane of phenolnatriosulforicinosum in 30 per cent. solution, two or three times a week. **Alexander** (*ibid.*, Bd. xxii, Heft 2), in a long and exhaustive monograph, reviews the theories which have been advanced to explain the disease, and, from them, builds up an explanation of the different conditions, adding the hypothesis that, from the primarily diseased underlying bone, pathological substances permeate the mucous membrane and cause the atrophy and other changes. Disease of the bone is the primary pathological disturbance. The earlier in life the disease starts, the more pronounced are the characteristic bony appearances—infantile nose, small turbinates, etc. It may begin in fœtal life. The atrophy of the mucous membrane and other structures is caused in some way, probably chemical, by the bone disease. The crusts and fœtor are accidental complications of the diseased mucous membrane and glands. The process extends to the lymph-glands and mucous membrane of the pharynx and larynx. The same author (*'Zeitschr. für Laryngol.'*, Bd. i, Heft 6), in another paper, discusses the relation between ozæna and syphilis; although unable to obtain any positive reaction by Wassermann's test, he argues for a possible or even probable connection between the two diseases. **MACLEOD YEARSLEY.**

Enlarged tonsils and "adenoids" (*'Clin. Journ.'*, November 9, 1910, p. 71).—**G. F. Still** deals adequately with this subject in a clinical lecture, the most noteworthy points of which are that he insists upon indications for operation lying rather in the effects of adenoids and tonsils than on their mere presence, and that there is no need for digital examination (so terrifying to a child), with which we are in full agreement. We also cordially agree that recurring earache and the slightest degree of deafness are the strongest reasons for treatment. **MACLEOD YEARSLEY.**

A brief report of three unusual cases of retro-pharyngeal abscess (*'Med. Record'*, II, 1910, p. 529).—**A. Spingarn** describes these, occurring in children aged 8 years, 13 months and 14 months respectively. The first was associated with pressure on the vagus, the second was followed by general pyæmia and death, and the third was accompanied by œdema of the glottis. **MACLEOD YEARSLEY.**

Asphyxia from entrance of worms into the larynx (*'Zentralbl. f. Kinderheilk.'*, 1910, p. 462).—**E. Landa**.—A girl, aged 3½ years, suffering from post-influenzal broncho-pneumonia, was given a dose of calomel, after which worms appeared in the mouth. The mother thereupon rubbed the chest with turpentine, and the worms escaped into the larynx, causing immediate death from asphyxia. **J. D. ROLLESTON.**

Foreign body in the right bronchus; extraction; cure (*'Arch. Internat. de Laryngol., d'Otol., et de Rhinol.'*, 1910, xxx, p. 535).—**Della Valle** describes the case of a boy, aged 7 years, who entertained a large dry bean in the right bronchus for two days, whence it was removed by tracheotomy. There is appended a good discussion upon mortality and treatment of these cases, together with a bibliography. **MACLEOD YEARSLEY.**

Reviews of Books.

THE HYGIENE OF INFANCY AND CHILDHOOD, AND THE UNDERLYING FACTORS OF DISEASE. By A. DINGWALL FORDYCE, M.D., F.R.C.P. Edin., Extra Physician, Royal Hospital for Sick Children, Edinburgh. Edinburgh: E. & S. Livingstone, 1910. Price 6s. net.

So many works have been written in the last few years on the conditions and diseases peculiar to children that the need for any new book on this subject becomes more and more questionable. However, Dr. Fordyce has followed the novel plan of "attempting to correlate the primary scientific facts of medicine as they apply especially to pædiatrics." To accomplish this he divides his work into five parts, in which are considered the influences of the food factor, the factor of heredity, the factor of environment, the bacterial factor, and the factor of the age-period respectively. Under each section he first deals with the physiological aspect of the factor involved, as it applies particularly to childhood, and then uses the arguments so obtained to explain the peculiarities of the abnormal processes at that period.

The author is to be congratulated on his endeavour to impress the profession with the importance of grasping the scientific basis for the distinctiveness of disease in early life. His idea is well worked out, and to support it the book contains much valuable information which cannot be found in other works on diseases of children. Dr. Fordyce offers it to "busy practitioners in the hope that thereby they may be put *au courant* with the various aspects of pædiatric medicine, and to young physicians as a modern basis of clinical pædiatrics," but we question whether it is of direct enough value in practice to appeal to the former, and doubt if it could be assimilated by any who had not kept themselves up-to-date in the subject already. For instance, the laws of heredity, to which many pages of letterpress and a special appendix are devoted, are altogether too ill-defined and elusive at present to be of much use.

By delving into the literature the author has enriched his volume with an abundance of quotations, each of which he has been at great pains to acknowledge, but we must confess that their very profuseness makes for difficult reading. In many places the original text is very scanty, and wedged in between such lengthy quotations that the sequence is almost lost in the confusion of different literary styles.

To turn to more detailed criticism we are glad to see that he rightly emphasises the importance of breast-feeding on p. 54, without which note no book professing to deal with infant feeding should be acceptable. More debatable is his preference for scalded milk over that which has been boiled or pasteurised, but we think he is fully justified in his estimation of the dangers of raw milk. After it we expected some mention of the many contaminations of cream, but were disappointed. Little is said about citrated milk, but the statement appears that 2 gr. of citrate of soda to the ounce of milk will completely prevent the action of rennin. If he will try this for himself in a test-tube he will find it is not true. On the whole what he writes about the artificial feeding of infants is sound and free from fads. Much sound doctrine, too, is contained in the chapter on environment, where the disadvantages of town and country life respectively, and the importance of cleanliness and of athletics suitable to the different sexes are considered. The value of early, mental, moral and religious environment and its effect on the individual in later life are properly pointed out.

Many other good things are to be found in this original book, which we think deserves a better binding and general get-up than it has received. F. L.

DIE SYPHILIS DER UNSCHULDIGEN. By Dr. OSKAR SCHEUER. Berlin and Vienna: Urban and Schwarzenberg, 1910. Pp. 156. Price M. 10.50.

THE title of this book, 'Syphilis of the Innocent,' is somewhat anomalous, as the subject matter includes syphilitic infection by unnatural sexual intercourse, which can hardly be regarded as "innocent," and does not include hereditary syphilis, which is essentially so. In fact, the work is a monograph on extra-genital syphilis. The author mentions the 12,000 cases of extra-genital chancres collected by Dr. Duncan Bulkley, and published in his book on 'Syphilis in the Innocent,' 1894, also the 1124 cases published by Fournier in his book on 'Les Chancre Extra-génitiaux,' 1897. To these he adds 5679 cases collected from literature and personal observations between the years 1896 and 1909. The book thus comprises a fairly complete account of the published cases of extra-genital syphilis, and includes a copious bibliography. The author classifies extra-genital chancres according to their localisation, and also according to their mode of origin. Of special interest is a case of infection through insect-bite, and it is somewhat remarkable that only one such case has been reported, for this mode of contagion may be more frequent than is generally supposed, especially in tropical regions. As regards the prognosis of extra-genital syphilis, the author considers that any departure from the normal course depends on secondary conditions and not on the extra-genital situation of the chancre. The book deals with a subject of great importance, and is a valuable contribution to the literature of syphilology. C. F. M.

FORMULAIRE CLINIQUE ET THÉRAPEUTIQUE POUR LES MALADIES DES ENFANTS. By Dr. ALBERT VEILLARD. Fifth edition. Paris: Librairie médicale Bougault, 1911. Pp. 446. Price 4 f.

THIS book is a very practical and complete dictionary of treatment in cases of disease in children. It contains more than its title at first sight would suggest, the first part being concerned with the feeding of infants, and the second with the methods of prophylaxis and treatment in the various diseases of childhood in addition to the appropriate prescriptions. To anyone acquainted with the French Codex the prescriptions should be of great assistance, but even English readers may gain many useful hints as to remedies and the methods of rendering them palatable to young patients. In the first part, too, there are some useful recipes for feeding. There is a valuable chapter on the purgatives suitable for children, and another on opiates, which the author seems to employ more freely than is customary in England.

This, the fifth edition, has been brought thoroughly up to date, and deals with sero-therapy, organo-therapy, and "606." The book is written in a clear and easy style, and contains a fund of information to which English practitioners might well refer.

THE CARE OF INFANTS AND YOUNG CHILDREN IN HEALTH. By MILDRED BURGESS, M.D. London: H. K. Lewis, 1910. Price 1s

DR. BURGESS has written an excellent little work on the time-worn and troublesome subject of infant feeding and child management. The book begins with an account of the right management of infant feeding and the care of the mother's health during lactation. Unlike most authorities, Dr. Burgess does not find any great advantage from the mother taking large

quantities of milk. Alcoholic drinks are not approved of for the nursing woman, but the bad effect on the offspring, and its occasional effect in producing infantile convulsions as noticed by Budin, are not mentioned.

The evils of over-suckling are clearly pointed out, and the idea that prolonged lactation prevents pregnancy is shown to be false.

In her remarks on artificial feeding Dr. Burgess recommends cod-liver oil as an addition to diluted cow's milk. Most authorities recommend butter, which is probably cheaper and more within the reach of the poorer parents. Barley-water is still recommended, though it has been abandoned by many pædiatrists.

No mention is made of the fact that sterilised cow's milk requires no dilution or other alteration, and that infants as a rule do well on this diet, although a few cases of scurvy have been recorded.

Dr. Burgess does not sufficiently emphasise the importance of constantly weighing the newborn.

No table of the normal increase in weight is given, and the method of weighing an ailing child before and after each breast feed in order to ascertain the adequacy of the supply of the mother's milk is not alluded to.

Excellent chapters on bathing, clothing, and the treatment of minor emergencies conclude a most useful work.

GUY'S HOSPITAL REPORTS. Edited by F. J. STEWARD, M.S., and HERBERT FRENCH, M.D. Vol. lxiv, being vol. xlix of the third series. London: J. & A. Churchill, 1910. Price to subscribers, 6s.; to non-subscribers, 10s. 6d.

OF special interest to pædiatrists is the first article in this volume, which is written by Hildred B. Carlyll, on "The Thymus Gland and the Status Lymphaticus." Every aspect of the subject is carefully discussed, and brief notes are given of sixty-one cases including many not hitherto published. We would also draw attention to a paper by G. W. Goodhart on "Chloroform Necrosis of the Liver," in which, after an account of his experimental work on rabbits and rats, he describes the post-mortem changes found in two cases in children.

OUR BABY: FOR MOTHERS AND NURSES. By MRS. J. LANGTON HEWER, Certified Midwife; late hospital ward sister. Twelfth edition. Bristol: John Wright & Sons, Ltd., 1910. Price 1s. 6d. net paper; 2s. 6d. net leather.

THE care of the infant is a difficult problem, and there are few subjects on which such gross ignorance is exhibited even by well-educated people.

This little book is intended to guide those who are directly or indirectly concerned in the bringing up of infants. That it is widely read is evidenced by the fact that a twelfth edition has just been published, and after reading it we have no hesitation in saying that its popularity is amply justified. It ought to be studied by every mother, or, better still, by every woman about to become a mother. We cordially agree with the sentiments expressed by the writer that the care of her child should first receive the attention of the prospective mother *before* and not *after* the baby is born. Nurses, midwives, and ladies engaged in charitable work among the poor will find it an invaluable and reliable book of reference. The teaching is sound, sensible, reasonable, and essentially practical. Perhaps one might point out that in the case of the poor many of the recommendations would require to be considerably modified. The book is excellent in every respect, and is well suited to the requirements of those for whom it is intended.